96th year

JUNE 1955
Vol. 182 — No. 6

AMERICAN Gas Journal

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JUL 27 1955

THE *LIGHT* WAY TO INSTALL BIG METERS

New

ROCKWELL No. 4 Aluminum METER

- **WEIGHS ONLY 176 LB.** . . . or less than ⅓ that of a cast iron meter of the same capacity.
- **CAPACITY 5000 CFH** (at 2-in differential of 0.60 sp gr gas).
- **WORKING PRESSURE 100 PSI**—ample for most installations.
- **SINGLE JOINT CONSTRUCTION**—simplifies service, reduces leakage risks.
- **STAINLESS STEEL THREAD INSERTS** at inlet, outlet, index plate and body flange taps.
- **STEEL FEET** to insulate body against alkaline or corrosive attack.
- **ALL INTERNAL PARTS INTERCHANGEABLE** with existing No. 4 iron meters.

An easy-to-handle meter for basement installation in buildings. The ideal replacement for large tin meters still in service.

ROCKWELL MANUFACTURING COMPANY

PITTSBURGH 8, PA. Atlanta Boston Charlotte Chicago Dallas Houston
Los Angeles Midland, Texas N. Kansas City, Mo. New York Philadelphia
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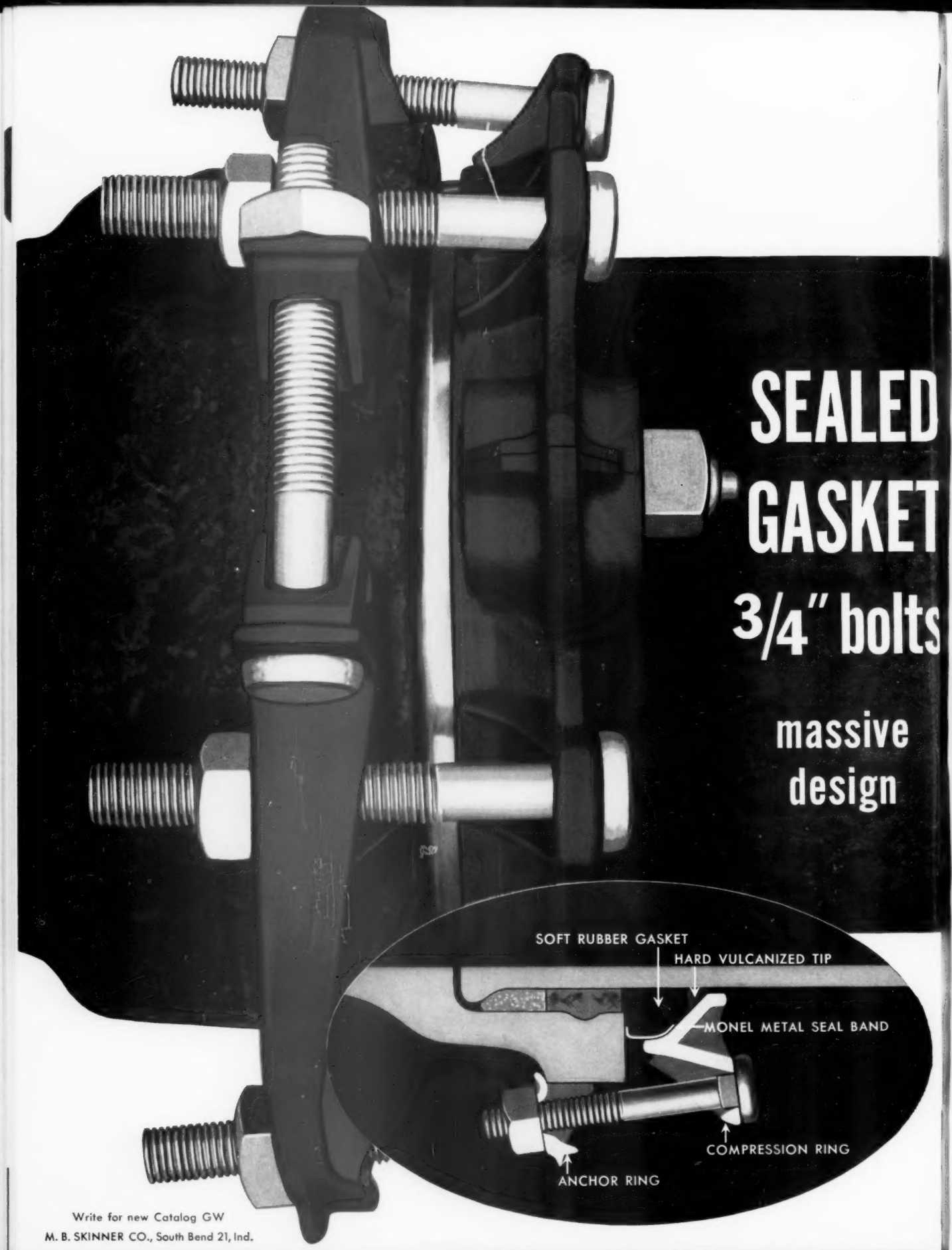


Write for new Catalog GW
M. B. SKINNER CO., South Bend 21, Ind.

SKINNER-SEAL BELL JOINT CLAMP

JUL 25 1955

MORE RELIABLE METERING with any kind of gas

No matter what type of gas your meters must handle – manufactured, natural, L.P. gas, or combinations – your best bet is Vulcan synthetic diaphragms. They *stay* flexible, durable, leakproof and dependable . . . with *any* kind of gas.

For over 20 years Vulcan has specialized in synthetic diaphragms. Here are the ten important advantages that have resulted from Vulcan's longer experience and close cooperation with the gas industry:

1. **Flexible to permit low differentials.**
2. **Impermeable to prevent the diffusion of gas through the fabric and to accomplish this without periodic attention. Pre-tested at factory.**
3. **Stable under broad ranges of operating conditions.**
4. **Long life without cracking or disintegrating.**
5. **Adaptable to manufactured, natural and L.P. gas, or combinations.**
6. **Practical for installation and storage.**
7. **Uniform in gauge and texture.**
8. **Available in unrestricted supply.**
9. **Clean and dry, requiring no oiling or dressing.**
10. **Economical in original cost and maintenance.**

For complete information on Vulcan synthetic diaphragms, write for a copy of our free brochure: "The Heart of a Gas Meter".

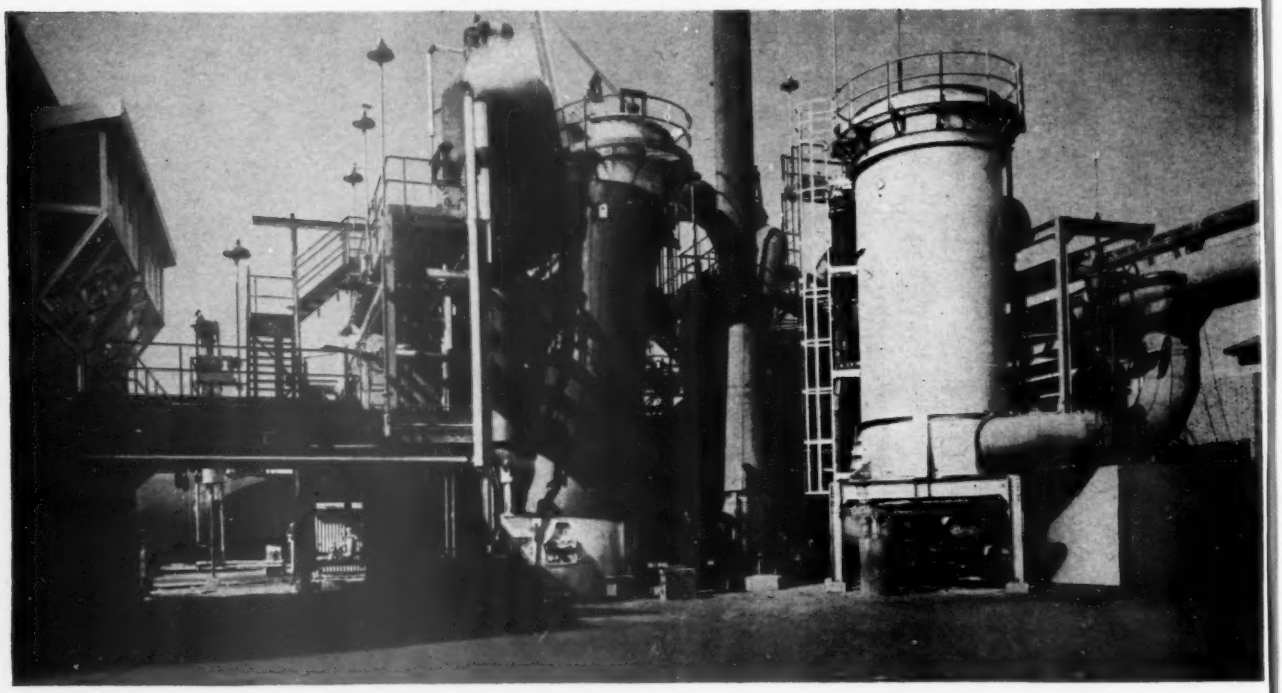
VULCAN RUBBER PRODUCTS, INC.
A subsidiary of Reeves Brothers, Inc.
54 Worth Street, New York 13, N. Y.

Vulcan

SYNTHETIC DIAPHRAGMS — FOR OVER 20 YEARS

THE U.G.I. CYCLIC CATALYTIC REFORMING PROCESS*

for reforming natural gas, L.P. gas, naphtha, kerosene, gas oil, heavy oil



—FOR BOTH MIXED GAS AND NATURAL GAS COMPANIES

FLEXIBILITY—for producing utility gas of required characteristics ranging from 325 to 1000 Btu—and ability to use various feed stocks.

HIGH CAPACITY—Using natural gas for reforming and cold enrichment, the CCR Process shows typical sendout gas capacities of 24,500 Mcf per day at 538 Btu, 0.61 gravity, and 37,000 Mcf per day at 720 Btu, 0.62 gravity.

LOW INVESTMENT COST—Modification of existing gas equipment or installation of new units utilizing existing plant facilities is practical and economical. With new higher capacities, costs per Mcf are reduced.

LOW PRODUCTION COST—The most economical material for reforming, as given above, can be selected. Efficiency is high as compared with thermal reforming. Steam savings, minimum labor, and low stand-by costs are further economies.

*Patents pending

SINCE 1949—
16 INSTALLATIONS

CCR

UNITED ENGINEERS & CONSTRUCTORS INC

NEW YORK 17 **PHILADELPHIA 5** CHICAGO 2

WITH A BACKGROUND OF OVER SEVENTY YEARS' EXPERIENCE

AMERICAN
Gas Journal

VOLUME 182 | 96TH YEAR : : JUNE 1955 | NUMBER 6

This month...

WE ROUND OUT 96 years of continuous publishing for the gas industry. There are times when the present editorial staff feels as though it had been doing the job every inch of those 96 years. For the record, we had better state that it is not quite the case.

A LUXURY in which we can seldom indulge, is the leisurely turning of pages in the bound volumes — complete since July 1, 1859 — to read snatches of news, technology and personal opinion. AMERICAN GAS JOURNAL files provide an historical flow of all 3 categories. As editors, we are interested and a bit aghast at the style that was in vogue 96 years ago. The lengths of articles and news reports clearly indicate that life was less hectic. Now, we try to fit our editorial style to the requirement for more "convenient reading" — faster reading. (And, we have been gratified by comments from some readers who have noticed and appreciated those efforts.)

NEXT MONTH, in response to many requests, we shall resume publication of selected news items from our old files — 90, 50 and 25 years ago — under the established heading, "Old days Recalled..."

A-BOMBS and their devastating effects have been worked over to the point where individuals are either bored or constantly petrified with fear. It is no thought of ours to add to either state of mind as we include Roger Johnson's on-the-spot report of the 35 kiloton blast at Yucca Flat, last month. He gives a view of what the gas industry might expect — IF. Page 12.

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EDITORIAL STAFF

Hilding H. Carlson, Editorial Director

John F. Falvey, Financial Editor
Ernestine Adams, Economics Editor
Jerry Stumm, Western Editor
A. D. Hale, Southwestern Editor
Vivian Castleberry, Editorial Assistant
Helen Cox Ordner, Editorial Assistant
Don Fickert, Presentation Editor
C. R. Graham, Features Editor

Charles R. Bellamy, Technical Editorial Consultant

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ADVERTISING STAFF: John Wallace, 52 Vanderbilt Avenue, New York, N. Y., MUrray Hill 4-1880; E. V. Perkins, 53 West Jackson Blvd., Chicago, Illinois, HArrison 7-6883; Richard P. McKey, 465 East Union, Pasadena, California, RYan 1-8779; William Faville, 317 Citizens Bldg., Cleveland, Ohio, SUperior 1-7979; Roger Motheral, 2331 Goldsmith, Houston, Texas, MOnroe 5-3039; Jess Adkins, 800 Davis Bldg., Dallas, Texas, STerling 4404.

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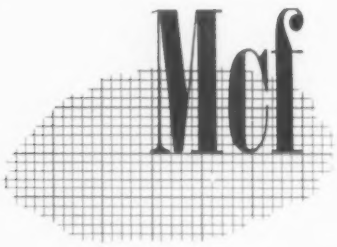

LUXURIOUS FUEL is what Sen. Fulbright (D., Ark.) called natural gas at opening of Senate hearings. He stated "it is no more a necessity to consuming public than a Cadillac."

TESTIMONY before Congressional committees has proportions of the now-dimly-recalled G-580 proceedings by FPC in 1945-46. The number of witnesses, extent of their statements and diversification of their views preclude possibility of anything that resembles adequate reporting by GAS JOURNAL.

PHILADELPHIA mayor, spokesman for 50 big-city mayors told Senate committee to leave Natural Gas Act "as it is, let FPC work out the details." And, he said, Congress might reexamine situation "in a couple of years to see if producer interest is being hurt."

RETORT by R. F. Windfohr, Mid-Continent Oil and Gas Association, said mayor would be doing better job for Philadelphia consumers by backing exemption legislation. He said Philadelphia has had no rate increases since natural gas was first delivered there, 1948.

OMNIBUS BILL by Sen. Magnuson (D., Wash.) would roll together all presently-considered amendments to Natural Gas Act, including interests of producer, coal consumer and administrative procedure. Bill is S.1880.

INVESTIGATION is involved also in Magnuson bill. He would go right through the Act, saying overhaul is in order after 17 years on the books. That would give us a really ding-dong Donnybrook Fair.

COMPLICATIONS have now set in on bills to exempt gas producers from Federal regulation—to point where it seems that bills will reach floors before Summer recess of Congress.

COMMISSIONER Nelson Lee Smith's departure from FPC, following his declination of reappointment, left spot to be filled during this controversial gas period. Little-noticed, has been Senate confirmation of William R. Connole, general counsel of Connecticut commission. He takes over June 22.

GROSS NATIONAL PRODUCT at record annual rate, $370-million. It is expected to go beyond that during next months. So, despite prophets of moderate gloom, 1955 can be counted upon for new high in activity.

RETAIL SALES, barometer of interest to gas industry, during first quarter topped the 1954 quarter by approximately 7%.

INEVITABLE TAPERING, when peak is reached, heralded as holding no alarming potential.

FEDERAL SPENDING has been reduced by about 27% from high of 1953, so $370-million GNP is more significant because it comes from business and personal spending.

INTERNATIONAL TENSIONS have been factor in industrial production; still are, despite reductions in Federal spending. Ironically, some government economists fear that easing of tensions will create strains in U. S. prosperity. Let's face it: When shooting has reached present degree of technology, there's no such thing—if we have any realism in our National brain—as stopping wherever we are, if the Russians happen to smile politely at us.

TECHNOLOGY OF SHOOTING has highly significant characteristic obsolescence proceeds at making it difficult for production to keep up with research and development. (In its own way, that is relatively true of Russia, too.) Consequently, production of shooting tools—with gas as an essential in some precise processing operations—just cannot halt.

GUARANTEED ANNUAL WAGE, already referred to as GAW, holds vast economic implications—far beyond the considerations of just Ford Motor Company.

PREDICTION: (and we are hesitant about them) GAW is on its way in as a widespread feature of labor-management negotiations.

FOTOFILE is name of new American Gas Association service, launched last month, shows "gas industry in action . . . selections from photographic files of American Gas Association for member company use."

X-RAY GAS ANALYZER for rapid quantitative analysis, detects elements of high atomic weight in gas mixtures and determines proportions, says North American Philips Co., the developer.

ENGINEERING GRADUATES this year are "students most likely to get jobs." Shortage is terrific; will get worse, year by year, from now on. Southern Methodist University reports 5 openings for every engineering graduate.

DON'T-LAUGH DEPARTMENT: Solar energy research is moving ahead on a number of qualified and well-financed fronts.

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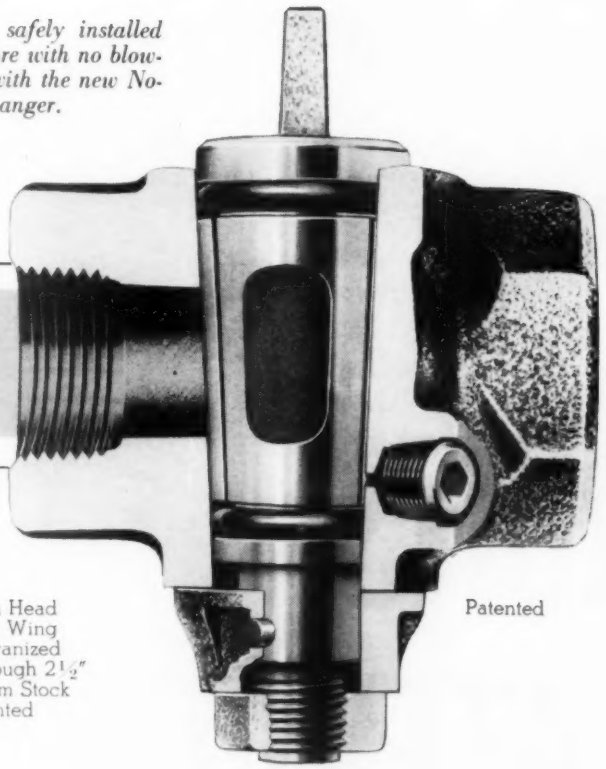
MUELLER

LubOseal gas stops

Easily and safely installed under pressure with no blowing of gas with the new No-Blo Stop Changer.



PRESSURE-TIGHT at the PORT

NO-BLO

H-11170 Plain Head
H-11175 Lock Wing
Black or galvanized
Sizes ¾" through 2½"
Shipment from Stock
Fully Warranted

Patented

"O" Ring Seals are located above and below the port. Body and key are perfectly ground for absolute tightness at the port. This combination of features offers positive protection against leakage to atmosphere or the meter.

The exclusive lubrication system of the LubOseal permits assembly of the stop without grease. This allows the stop to be tightened just to the point of metal-to-metal contact between the key and the body for perfect pressure-tightness. Lubricant is then injected into the system at extremely high pressure, lubricating *all* contact surfaces. This lubricant is used to give a low turning torque only—not to seal.

This unique construction and assembly of the LubOseal results in positive, pressure-tight shut-offs, easy turning and long life.

Consult your Mueller Representative, your G-97 Gas Catalog or write direct for detailed information.

MUELLER CO. DECATUR, ILL.

Dependable since 1857

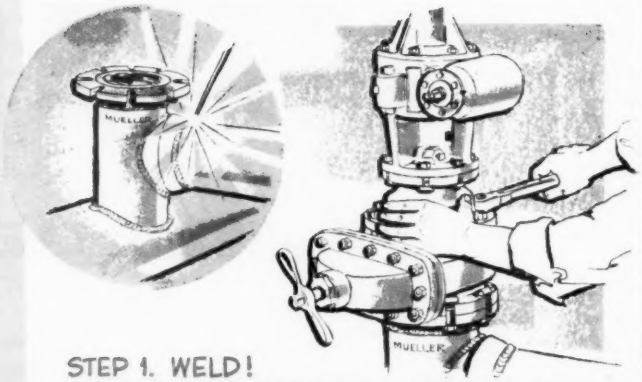
FACTORIES & OFFICES AT DECATUR · CHATTANOOGA · LOS ANGELES · SARNIA, ONTARIO

MUELLER®

NO-BLO Method

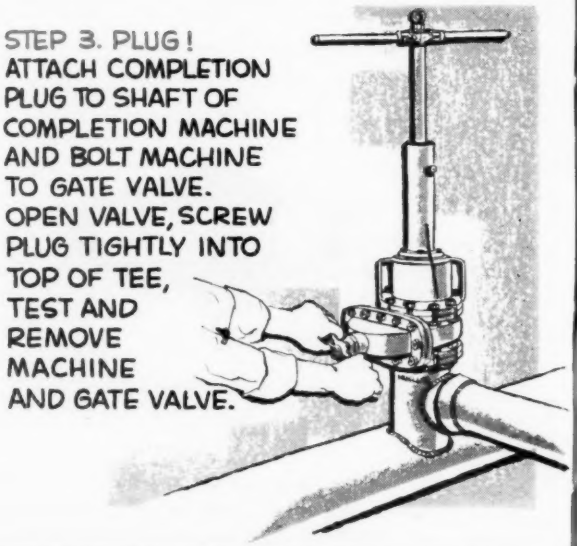
RUNS A LATERAL SAFELY...

This is another of a series showing the broad application of Mueller No-Blo Fittings and Machines used for their installation.

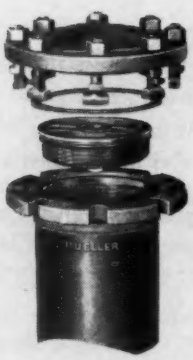


STEP 1. WELD!
WELD FLANGED TEE TO MAIN AND COMPLETE LATERAL TO VALVE (VALVE CAN BE PLACED AT THE MOST CONVENIENT LOCATION) TEST. BOLT GATE VALVE TO FLANGE OF TEE. FASTEN ADAPTER, PILOT DRILL AND SHELL CUTTER TO MACHINE – BOLT TO GATE VALVE.

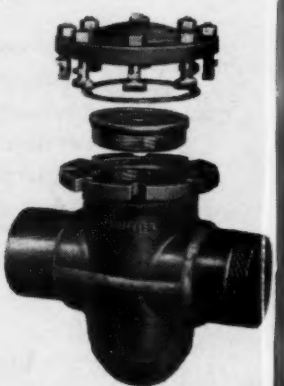
with the C1-36D



STEP 3. PLUG!
ATTACH COMPLETION PLUG TO SHAFT OF COMPLETION MACHINE AND BOLT MACHINE TO GATE VALVE. OPEN VALVE, SCREW PLUG TIGHTLY INTO TOP OF TEE, TEST AND REMOVE MACHINE AND GATE VALVE.

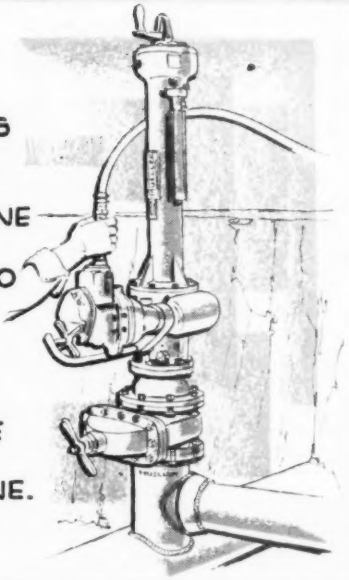


SAVE-A-VALVE DRILLING NIPPLE
Used to run temporary laterals . . . allows recovery of valve . . . welding inlet . . . contoured to fit pipe one size larger than nipple . . . sizes 4", 6" and 8" . . . pressures to 1200 p.s.i.

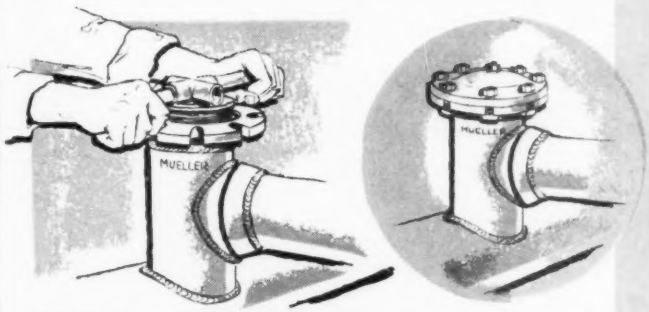


EXTENSION STOPPER FITTI
Used to run a lateral from a s
main . . . no gate valve requi
. . . stop-off means provided .
welding or threaded inlet a
outlet . . . sizes 3", 4", 6" and
. . . pressures to 1200 p.

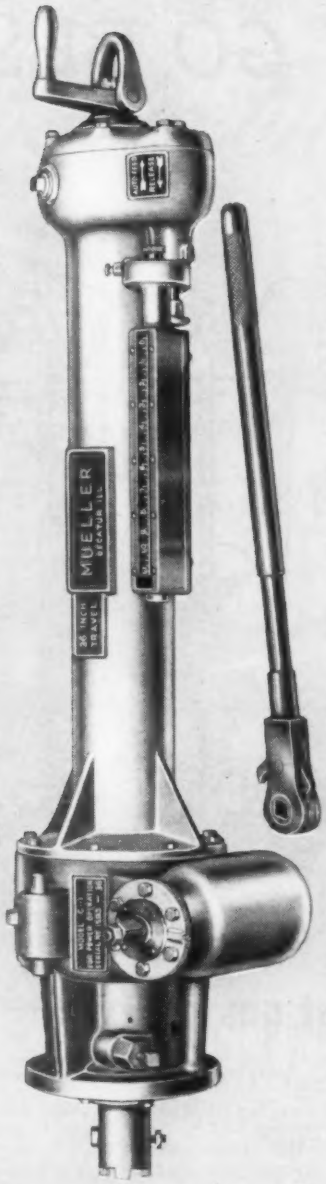
STEP 2. CUT!
OPEN VALVE. ADVANCE BORING BAR UNTIL PILOT DRILL STRIKES MAIN, RETRACT ONE TURN. SET FEED INDICATOR TO ZERO AND ENGAGE AUTOMATIC FEED. ATTACH POWER UNIT AND MAKE CUT. CLOSE VALVE AND REMOVE DRILLING MACHINE.



6 Drilling Machine



STEP 4. COMPLETE!
TIGHTEN PLUG WITH SPECIAL WRENCH AND SHORT LENGTH OF PIPE. TEST WITH SOAP SUDS. BOLT COMPLETION CAP SOLIDLY IN PLACE. INSTALLATION IS NOW COMPLETE. (STEPS 3 & 4 ARE ALSO USED TO PLUG SAVE-A-VALVE DRILLING NIPPLES AND EXTENSION STOPPER FITTINGS.)



Mueller C1-36 Drilling Machines make lateral main connections quickly and easily under pressure with no blowing of gas. Cuts from 2" through 12" are possible with automatic feed. Feed indicators are standard equipment. Telescopic boring bar gives added strength and compact construction with full 36" travel—more than enough for use with No-Blo Line Stopper Equipment. Working pressures to 500 p.s.i. and working temperatures to 500° F. are possible. Power-operated by air motor or portable gasoline engine drive unit. Hand-operated model, CC-36, also available.

For full details and specifications, consult your Mueller Representative, refer to Sections 15 and 16 of your Catalog G-97 or write direct.

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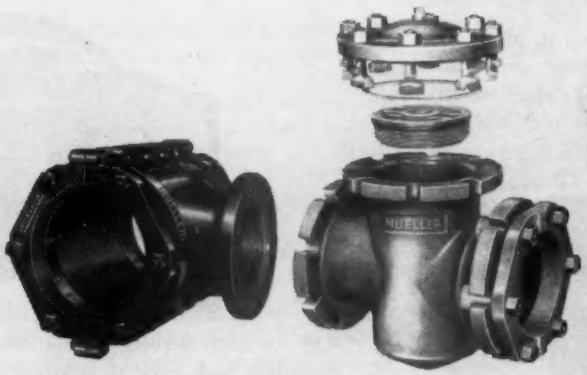
Dependable Since 1857

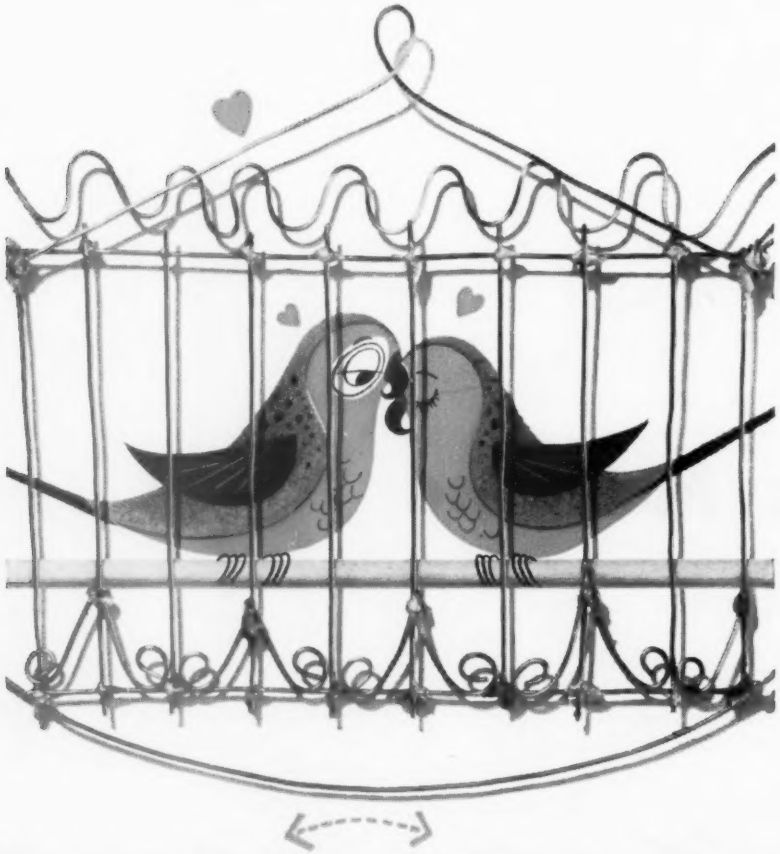
MAIN OFFICE & FACTORY DECATUR, ILLINOIS

ANGED TEE
eiding inlet and outlet . . . et contoured to fit pipe one e larger than tee . . . sizes 3", 6" and 8" . . . pressures to 00 p.s.i.



TAPPING SLEEVE WITH EXTENSION STOPPER FITTING OR MECHANICAL JOINT TAPPING VALVE
Used to run a lateral from a cast iron main . . . shut-off means provided . . main sizes 4", 6", 8", 10" and 12" . . . tapping valve sizes 2", 3", 4", 6", 8", 10" and 12" . . . stopper fitting size 4", 6" and 8" . . . pressures to 175 p.s.i. . . . tapping cross available.

THEY GO BEST TOGETHER



The best gas odorant—The best odorant service

Calodorant "C"
The best quality cyclic sulfide

Alert "80"
The best economy-priced, quality mercaptan

Calodorant "C" is the only natural gas odorant in use that is completely volatile under the most extreme high pressure or low temperature operating conditions. Performs equally well at medium and low pressures.

Alert "80" has been thoroughly proved in all types of distribution systems under today's more demanding operating conditions. Gives better, full range volatility and stronger initial "punch" and has met every test by large and small utilities.

ORONITE CHEMICAL COMPANY

3405

Have a unique odorization problem?

Oronite, a pioneer in the field of gas odorants, has odorant specialists and research facilities to thoroughly analyze any odorant problem. Chances are we already have done the research and have the answer to your problem.

Want to simplify "room-testing" procedures?

Ask for an Odorometer demonstration on your system. Simplest way ever developed to test odor intensities.

ORONITE CHEMICAL COMPANY

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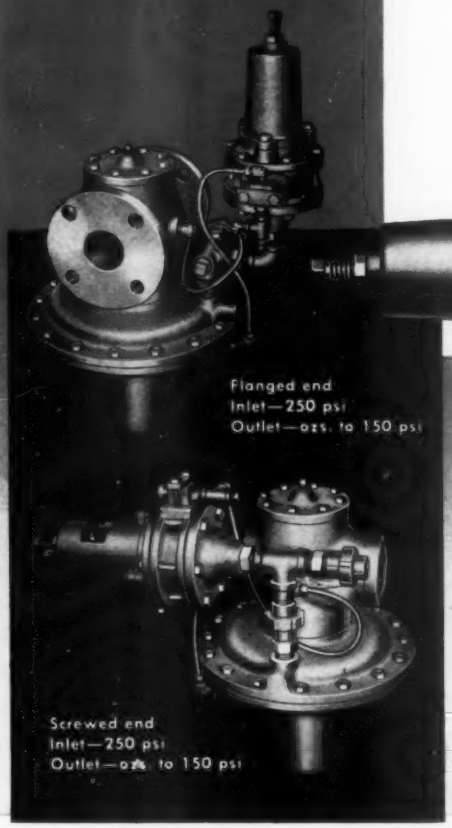
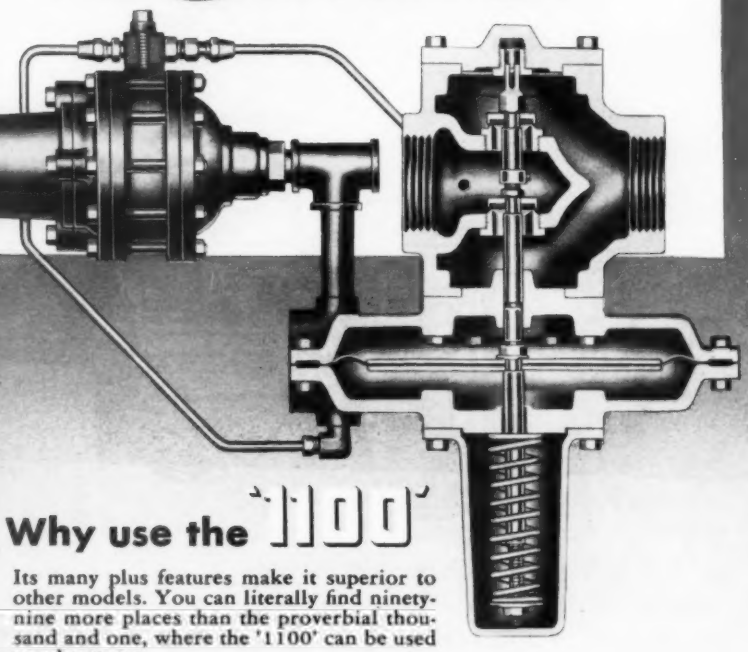
Chaplin-Fulton

why? '1100' regulator





Why use the '1100'

Its many plus features make it superior to other models. You can literally find ninety-nine more places than the proverbial thousand and one, where the '1100' can be used to advantage.

One basic assembly-2"-screwed or flanged.

- **WIDER APPLICATION**—inches water to 150 psi controlled pressure—means less different types to stock and service.
- **GREATER CAPACITY**—balanced valve construction passes 114,000 CFH at 100 psi to ounces—replaces larger costlier regulators to reduce cost of whole installation.
- **PROVEN PERFORMANCE**—straight line control from minimum to maximum flow. Stable operation on quick changing loads, or with on-and-off controls. Fast low lock-up on zero flow.
- **SIMPLER CONSTRUCTION**—no intricate parts or delicate adjustments. All wearing parts easily replaced. Regulator or pilot can be serviced without disturbing the other.
- **EASIER INSTALLATION**—compact design requires little space for installation in any position. Just place in line and make one connection from regulator to outlet line.

ACCURATE CF MFG CO. DEPENDABLE

Chaplin-Fulton
MANUFACTURING COMPANY
Pittsburgh 25, Pennsylvania

Bulletin 1100 with complete information sent on request.

54-1100

Prepared for trouble?

You don't have to be armed to the teeth to avoid communications trouble. Not when your communications are supplied by the Bell System.

A planned program of preventive maintenance is an important part of Bell System service. Its purpose is to prevent interruptions.

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Alternate routings are an integral part of planning by communications engineers to protect your service and prevent interruptions.

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We supply the pipe line industry with reliable private line telephone and teletypewriter service and provide channels for telemetering and supervisory control.

. . .

Bell System communications engineers will be glad to survey your communications needs without charge. Call your Bell Telephone representative today.

BELL TELEPHONE SYSTEM

TELEPHONE TELETYPEWRITER MOBILE RADIO TELEMETERING AND REMOTE CONTROL CHANNELS

Editorial . . .

Big Job for New Man

AMERICAN GAS ASSOCIATION'S new managing director, Chester S. Stackpole, most assuredly has our unstinting and unqualified best wishes for high success and high satisfaction in his new job. We have no impression that it is even *among* the easiest jobs in the gas industry.

We expect that there are those who will view his coming on the scene as the starting signal for a 90-day-miracle of a new AGA. The fervent hope is that there will be few who will be so unrealistic.

That is not to say that Mr. Stackpole does not find himself adequately fitted out with opportunities for applying the word *New*. And, happily, he will find many of those opportunities spelled out for him, on paper, in the AGA offices.

The need for review-and-revision in organization, policy and procedure was evident to the executive committee of AGA, some time ago. Consultants were consulted; they reported in 150 pages; AGA staff had the opportunity to submit comments on the report.

It is to the everlasting credit of the staff that those comments were briskly critical of unjustified or unrealistic criticisms in the report and they were in quick agreement with recommendations that had broadly-beneficial implications.

So, Mr. Stackpole now has the substantial working advantage of having both sets of viewpoints—and it is safe to assert that they will provide him with much thought-stuff.

With associations, in this case AGA, as with just about every other consideration in our individual, industrial and national lives—there can be no standing still. There is no middle ground between progression and regression. Too much about AGA policy-and-procedure has been standing still, which is to say regressing.

While Mr. Stackpole has many, many specifics to which he can direct his attention in the higher interests of a progressive and aggressive AGA, he will discover some less-well-defined matters that impinge upon the overall effectiveness of the association. One, but not exclusive for-instance: the widely-held opinion that the combination companies "run" AGA.

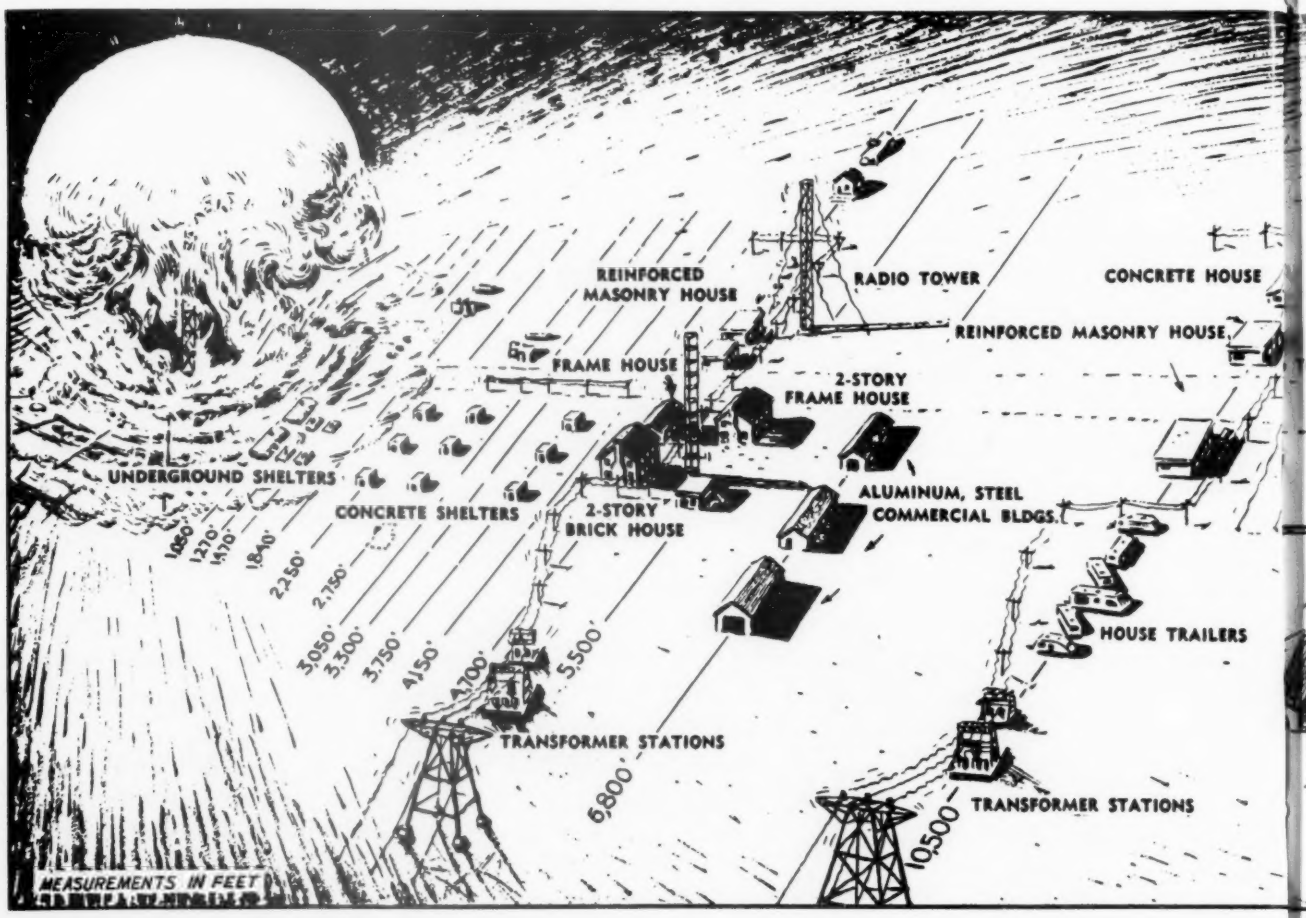
While there have been heartening indications recently that the thinking of pipelines and utilities is closer than it has been, certainly there is still a gap with proportions that warrant the personal attention of the new managing director—for improved overall effectiveness of AGA.

There is much that can be done for AGA that will be *new*. The cumulative effect, if step after step is taken, would be that of a *new* AGA. That is what the gas industry needs in its national association—progression, aggression, and cohesion.

We point out the obvious when we mention that Mr. Stackpole is, as far as we know, just one man. AGA really is many companies, represented by many more men and women. Their coordination and cooperation will be essential to Mr. Stackpole if he is to achieve what we assume to be an equally-obvious objective.

There is excellent reason for us to state that the executive members of the AGA staff are in a state of ready cooperation to activate new policies and procedures as they are issued.

Now, directly to Mr. Stackpole: Our most sincere best wishes and assurances of interest in your work.



▲ Artist's sketch of Survival City at Yucca Flat as it existed at the ultra-split-second when the 35-kiloton A-bomb was detonated on the 500′ tower.

GAS INSTALLATIONS SURVIV-E

Most equipment and appliances usable after blast

THE AUTHOR, Roger Johnson, was public relations representative of Gas Appliance Manufacturers Association at the Yucca Flat atomic bomb testing grounds. He assisted general news services in interpreting the effects of the blast on gas equipment and appliances. Mr. Johnson was formerly chief of the United Press Pacific Theater war desk in San Francisco.

American Gas Journal FEATURE

•It's NO NEWS that nothing survives the fury of direct atomic attack. But it is news when a vital industry demonstrates that it can survive with minimal damage on the fringes of an A-bomb blast, and can recover almost overnight to resume its service to the community. That's what the gas industry did in atomic Operation Cue.

Operation Cue brought together 2,300 of America's leading scientists, civil defense experts, statesmen, newspapermen, television and radio commentators and representatives of many industries.

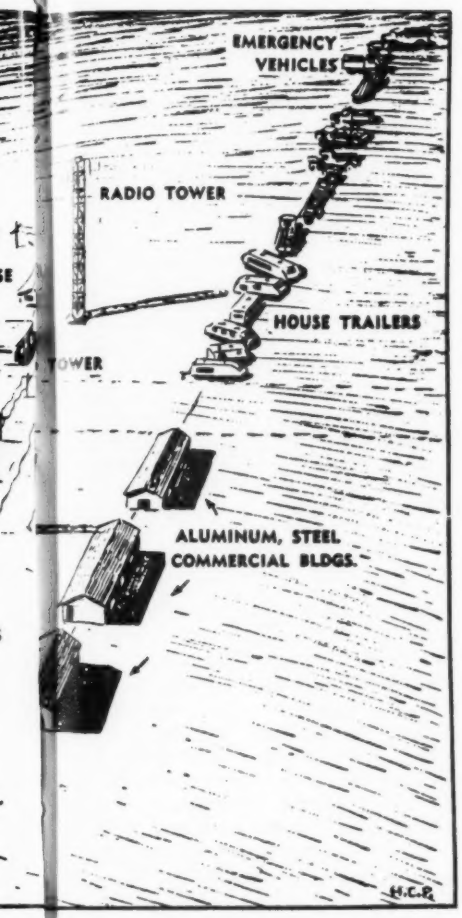
The often-postponed operation ended on May 6 with about 500 of the original observers and newsmen poking around the ruins of Survival City on Yucca Flat where the bomb had gone off.

The ruins did not include the gas installations. They had been planted so solidly in the desert sand that not even the A-bomb blast could knock them out.

I was accredited to Operation Cue as public relations representative for Gas Appliance Manufacturers Association, Pacific Coast Gas Association, and, unofficially, for Liquefied Petroleum Gas Association. It was my job to emphasize to media representatives and official observers the significance of this atomic test as it pertained to the gas industry in general, with special reference to the installations on Yucca Flat and the LP gas emergency feeding and coffee-making operations on Media Hill.

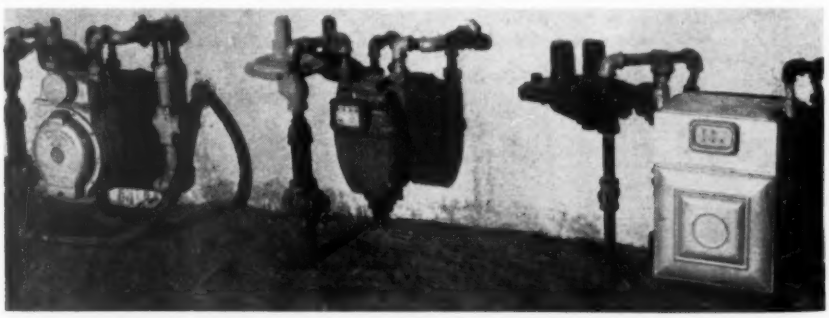
Our point was this—that gas is used in 4 out of 5 American homes. Here it was getting a test of its versatility and stamina in a big-sized atomic explosion, equal to the blasting of 35,000 tons of TNT. As Tom Arden said in one of the stories released on behalf of GAMA:

"Gas is used in 80% of American homes —about 32-million—with the greatest concentration in major cities. This means the official evaluation of damage to gas installations as set up for Operation Cue will be of great interest to family gas users in potential target cities. If overhead utilities are knocked out, the portability of LP gas systems is such that they could be moved into a disaster area and used almost immediately for emergency mass feeding, heating, sterilization and other essential operations that gas performs in peacetime."



Courtesy: *SoCal Gas News*, Southern California Gas Co.

▲ The effects of the blast on this test house are quite evident. The equipment in the hole, in front of the house, is a typical compressor. Before the blast, there was no hole and the compressor was at the ground level of the house.



▲ These gas meters, regulators and house connections withstood the blast and remained in operating order, despite their outdoor mounting.

A-BOMB

The results of the Survival City tests proved, as the industry hoped they would, that gas installations have a great capacity to withstand the destructive force of an atomic explosion and that quick resumption of service is possible after such a blast. Perhaps a brief account of how gas fared in Operation Cue will show that all segments of the industry can take pride in what was achieved.

When the long-awaited shot went off, the explosion at its base covered more than 2 square miles, enveloping the houses and installations at Survival City.

Concrete slab houses done in the contemporary California style fared much better than the brick-faced eastern type houses. I tried to take a picture of a gas range and refrigerator which came through relatively undamaged in one of the eastern style houses, but I had to get out. The roof caved in two minutes later. Incidentally, I saw the connections to the range and refrigerator still anchored in place amid the debris.

In another house, heavily damaged by the shot, a gas water heater was scarcely scratched. The refrigerator door was jammed and the metal slightly buckled, but otherwise the unit was apparently in usable condition.

The project officer reported that regulator vaults at 1,470′ and 4,700′ from "ground zero" were apparently undamaged except that aboveground 4" ventilator pipes at 1,470′ were sheared off at ground level. Valve pits and vaults had cast iron covers at ground level. Covers were slightly displaced but intact at 1,470′, unmoved at 4,700′.

A line of electric power poles at the 4,700′ line were chopped off by the blast at about 6′ above the ground and power lines were tangled about the poles.

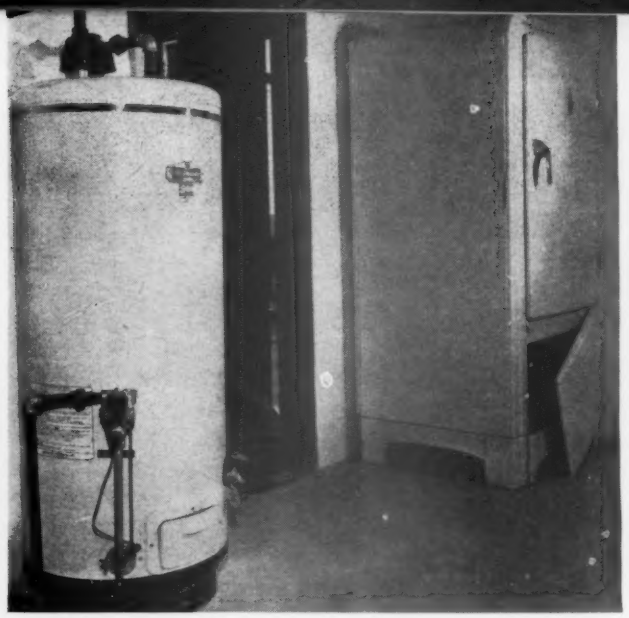
Atomic Energy Commission cameras caught what happened when the shock wave hit a large propane tank and LP loading station at 4,700′. Pictures showed the twisted metal of the shed which collapsed. They showed small LP tanks being hurled through the air, while the big 15,000-gal tank remained intact except for a bend in its handrail. The small LP tanks did not explode. They were lying on the ground, widely scattered but in good condition when we found them next day.

A range, refrigerator, water heater and room heater in a house at 10,500′ were apparently undamaged and immediately usable. The only thing that happened was that the pilot lights were extinguished.

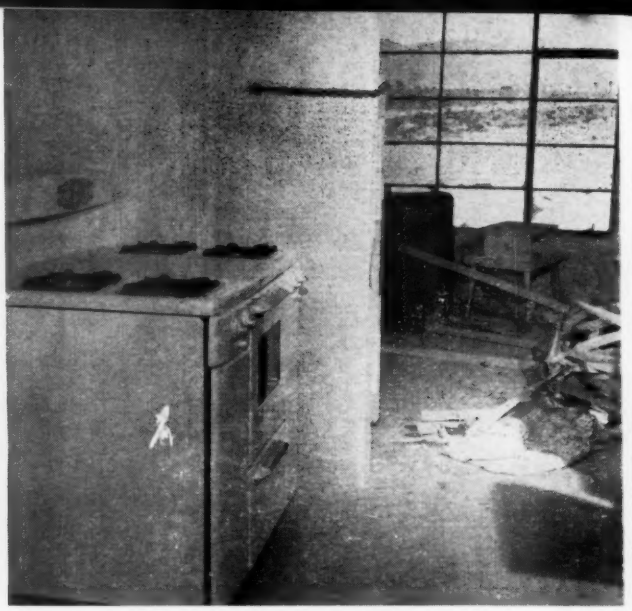
In another house the living room was a mass of rubble, while the gas range in an adjoining room was undamaged. Again, the pilot light seemed the only casualty.

Service piping to houses at 4,700′ and 10,500′ and house meters and regulators outside the east walls of the houses were apparently undamaged. The same was true of the house piping. A water heater and gas clothes dryer in the basement of a slab house at 4,700′ were unharmed.

The results of the gas industry tests made a deep impression on many of the observers outside the industry. Representatives of the nation's press in many instances emphasized the significance of the gas industry participation in Operation Cue, so that readers from coast-to-coast now know that the gas industry will be a source of strength in the event of any atomic attack.



▲ In a house that was shot-through with wrecked furnishings, this water heater is undamaged and the Servel refrigerator is in operating condition, despite the position of the access panel.



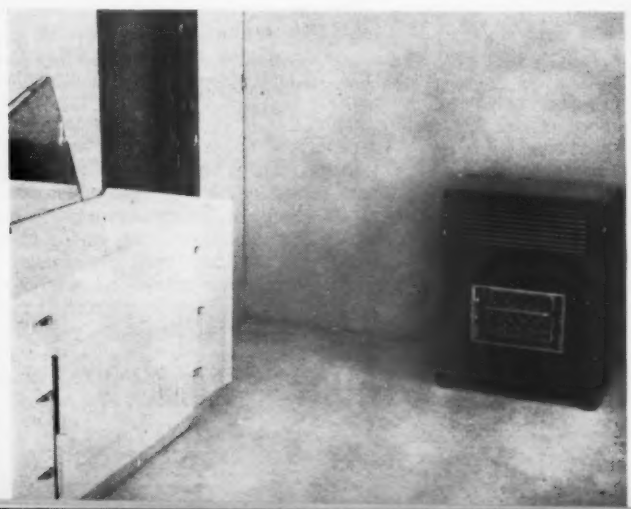
▲ Roughed-up, slightly, this automatic gas range is ready for its usual domestic operation. The backsplash was dented; other wreckage in the house is evident.

▲ This general view of the wreckage at Survival City shows the blast-effects on overhead lines.

The many and varied reports distributed through all media of mass communication reiterated and elaborated on what the Nation's largest news wire service reported to its newspaper and radio subscribers all over the country; "Underground gas lines withstood the jarring earth shock and appeared to be undamaged from the 4,700' mark . . . Fuel gas tanks came through the ordeal surprisingly well."

As long as there is the possibility of an atomic attack, certainly nobody can afford to be complacent about the terrible results of such a blast, nor should anyone minimize the tremendous difficulties which would be involved in the aftermath of an A-bomb explosion. However, the tests at Yucca Flat demonstrated to defense authorities and to the American public that gas installations and equipment are able to withstand severe blows, and that all segments of the industry have the capacity to recover quickly in a time of disaster and to restore to a stricken community the vital services that gas performs.

▼ A gas space heater in a room with wrecked furnishings is ready to go.



▼ A test-stand with gas equipment shows no sign of damage, even though twisting of structural members of building was severe.

SGA CONVENTION sets attendance record

▲ **Southern Gas Association Officers: 1955-1956.** (Standing) Dale E. Frieden, Zenith Gas System, Inc., secretary; Willard G. Wiegel, Lone Star Gas Co., treasurer; Curtis M. Smith, Tennessee Gas Transmission Co., 2nd vice president; E. R. Cunningham, Texas Eastern Transmission Corp., chairman, advisory council.

(Seated) R. A. Puryear, Jr., Alabama Gas Corp., 1st vice president; J. H. Collins, Sr., New Orleans Public Service Inc., president.

Other officers are: A. H. Weyland, Arkansas Louisiana Gas Co., vice chairman, advisory council; Kyle H. Turner, Atlanta Gas Light Co., assistant secretary.

Newly-elected SGA directors are Richardson W. Camp, Consolidated Gas Utilities Corp.; Oliver W. Clark, Southern Natural Gas Co.; Buell G. Duncan, Piedmont Natural Gas Co.; Donald M. Mayne, Servel, Inc.; and C. B. Reinschmidt, South Atlantic Gas Co.

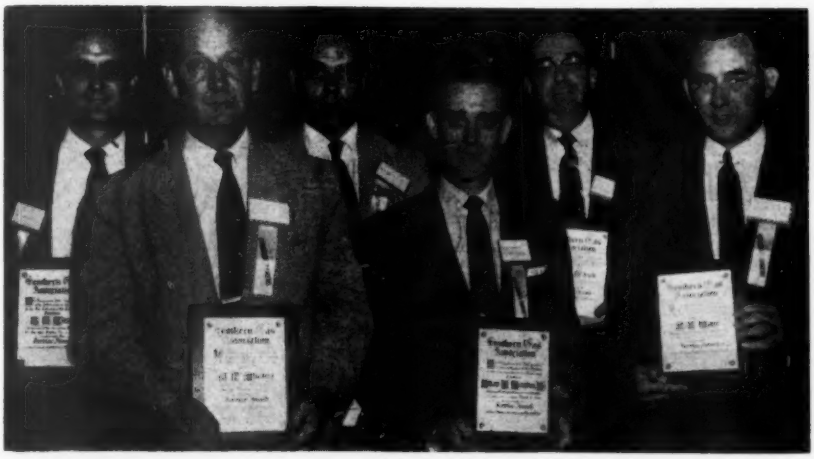
SOUTHERN GAS ASSOCIATION'S 47th annual convention, New Orleans, May 16-18, had the largest attendance in SGA records, with total registration of 1,989.

Speakers pointed out the excellent prospects for the gas industry. Industrially, they pictured the South in a challenging position because of its abundance of competitively-priced fuel. For the home, they revealed imminent developments in gas for air-conditioning, cooking and heating with potentials for expanding year-round sales.

The delegates were cautioned that mere "availability" isn't going to bring prosperity to any industry. T. T. Arden, president, Gas Appliance Manufacturers Association, and executive vice president, Robertshaw-Fulton Controls Co., made a strongly-worded plea for SGA members to go to newspaper and magazine advertising pages to learn the important secrets of industrial success. That formula, he said, is a Siamese twin of sales and promotion, and only through it

Turn to page 46—SGA CONVENTION

▲ T. T. Arden, left, president, Gas Appliance Manufacturers Association, and executive vice president, Robertshaw-Fulton Controls Co.; F. Marion Banks, center, president, American Gas Association, and president, Southern California Gas Co.; with J. H. Collins, Sr., New Orleans Public Service, Inc., new SGA president.



▲ SGA section chairmen, 1954-1955, with their service awards, L-to-R: R. L. Hinch, Nashville Gas Co.; J. H. Chenery, Alabama Gas Corp.; Jack M. Averett, Gas Light Company of Columbus (Ga.); Thad W. Rowden, Jr., Arkansas Western Gas Co.; V. E. Rasch, United Gas Corp.; W. O. Lape, Texas Gas Transmission Corp.

▲ Presentation of gavels to sponsors of SGA distribution section round-table conferences: L-to-R: Jack M. Averett, Gas Light Company, Columbus, Ga.; B. F. Worley, United Gas Corporation, Shreveport, La.; J. D. Pickard, Piedmont Natural Gas Co., Inc., Charlotte, N. C.; C. C. McEachern, United Gas Corporation, Houston, Texas.

Atomic-Powered System for Home Heating and Cooling Is Visualized

Cost estimated as having competitive advantages

THIS SUMMARY OF A VISUALIZED HOME HEATING AND COOLING SYSTEM USING A BABY NUCLEAR REACTOR IS PRESENTED IN AMERICAN GAS JOURNAL FOR ITS IMPLICATIONS IN THE SERVICE AREAS OF GAS UTILITIES.

• AN ATOMIC year-round home heating-cooling system, powered by a baby nuclear reactor hooked-up to a boiler, has been foreseen as a "practical reality possibly within a few years."

The "A-Boiler" system, regarded as safe from radioactivity would bring complete freedom from cost of conventional fuels. The system would both heat and cool individual homes for approximately 6 years on a single charge of fissionable material, hermetically sealed within the multiple-shielded miniaturized reactor. Cost for the 6-year charge is estimated at about $300. About twice the size of an auto battery, the reactor would be replaced with another sealed unit at the same price after its charge has been exhausted.

The A-boiler system, which is visualized as being added to existing home heating boilers without removing them, would provide homes with chilled water cooling in summer, hot water heating in winter, virtually unlimited year-round household hot water, and heat for melting snow from walks and driveways.

The announcement was made by Robert E. Ferry, general manager, Institute of Boiler and Radiator Manufacturers, at a recent Institute meeting.

Quoting industry experts, Mr. Ferry said the "chief foreseeable problem holding up availability of the A-boiler system is the need for adequate supplies of fissionable material at economic cost." Engineering knowledge of design, material and shielding of the baby reactor "appears to be no longer a problem," he stated, adding that improvements in controls and safety devices can be confidently expected. Among the companies represented at the IBRM meeting, several are reported to be working on A-boilers for large installations.

Summer cooling in homes by the A-boiler system was described as being accomplished by addition of a small absorption refrigeration unit, which operates on heat, similarly to the gas refrigerator. Water chilled by the unit would be piped to forced convectors or dual baseboards to cool the home. In winter, the same sealed piping circuits, with a non-radioactive heat transfer medium, would carry hot water, as in a modern conventionally fueled hot water heating system. Household hot water for bathing, dishes and cleaning would be heated instantaneously by a coil in the boiler, and a snow melting system of tubing extended under walks and driveways would also be powered by the extreme range of high temperatures available from the baby reactor.

Other advantages of the A-boiler system were said to include elimination of smoke (nuclear fission requires no oxygen), dirt and soot. A new home equipped with an A-boiler system would not require a chimney. Other savings would be reductions in charges for electricity normally required to operate summer air conditioners in maintenance costs.

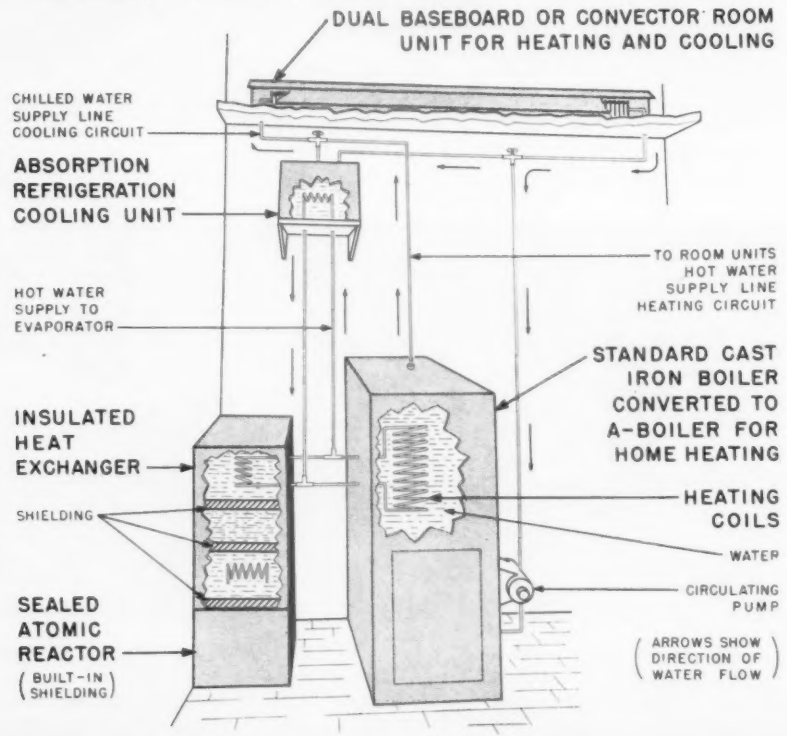
The A-boiler system would be installed either by converting present home heating boilers, adding atomic reactors, or as new units combining reactor, heat exchanger and boiler in one package. Approximate cost for converting existing boilers is estimated at $1,000, a completely new installation is estimated at $1,500. The sole expense thereafter would consist of recharging every 6 years by exchanging the exhausted reactor for a fresh one, factory adjusted, sealed and precontrolled. Life of the system equipped with a cast iron boiler was set at 40 years or more.

Possibility of explosion within the reactor was said to be completely eliminated since critical elements necessary for chain reaction would not be present in the fissionable material.

Except for inadequate supplies of fissionable material, the home A-boiler could be produced today, according to comments at the institute meeting. Greatest A-boiler progress is being made in developing equipment for large utility and power plants. Since the home A-boiler is simple, compared with the giant equipment, it was regarded as "reasonable to expect very rapid progress once the supply of atomic fuel begins to increase more swiftly."

Except for the reactor and heat exchanger units, all equipment including heating-cooling convectors and baseboards, boilers and cooling units required for the year-round A-boiler system is on the market now.

ATOMIC HOME HEATING-COOLING SYSTEM Visualized by Institute of Boiler and Radiator Manufacturers


DUAL BASEBOARD OR CONVECTOR ROOM UNIT FOR HEATING AND COOLING
CHILLED WATER SUPPLY LINE COOLING CIRCUIT
ABSORPTION REFRIGERATION COOLING UNIT
TO ROOM UNITS HOT WATER SUPPLY LINE HEATING CIRCUIT
HOT WATER SUPPLY TO EVAPORATOR
STANDARD CAST IRON BOILER CONVERTED TO A-BOILER FOR HOME HEATING
INSULATED HEAT EXCHANGER
SHIELDING
HEATING COILS
WATER
CIRCULATING PUMP
SEALED ATOMIC REACTOR
(BUILT-IN SHIELDING)
(ARROWS SHOW DIRECTION OF WATER FLOW)

AMERICAN Gas Journal FEATURE

Extensive public relations conference will help prepare utilities for all aspects of changeover

Pacific Northwest Companies in High Activity Preparing for Natural Gas

• A PACIFIC COAST public relations conference for natural gas distributing companies, at Seattle, June 20 and 21, will further the preparations for the coming of natural gas to the Pacific Northwest next Summer.

Discussion will be concerned with public relations problems in the changeover to natural gas, and promotion in competition with sources of energy established in the region.

"We will devote the conference to educating personnel of distribution and pipeline companies in public relations needs for the advent of natural gas," said B. T. Poor, vice president, Washington Gas & Electric Co., and chairman of the conference.

"Advice from industry people who have been through the initial phase of natural gas service will be valuable to us in the Northwest. We are fortunate in being in a position to profit from the experiences of the industry elsewhere in the country."

The conference is sponsored jointly by American Gas Association, Gas Appliance Manufacturers Association, Independent Natural Gas Association, Pacific Coast Gas Association and National Council for LP-Gas Promotion.

All Northwest distributing companies are expected to send delegations to the conference.

S. V. O'Lenic, president, Chattanooga Gas Co., will speak on "Meeting Our Competition."

E. T. Arden, executive vice president, Robertshaw-Fulton Controls Co., and GAMA president, will discuss load-building.

Robert M. Brigham, assistant vice president, Springfield, Mass., Gas Co., will relate his company's experiences in preparing for natural gas.

G. C. Westmoreland, supervising engineer, Southern California Gas Co., will give reasons to support the statement "Natural Gas Is Safe."

W. L. Shoemaker, vice president, Northern Natural Gas Co., will discuss the contributions of natural gas in area development.

Claude S. Hazel, assistant manager, customer service department, Philadelphia Gas Works, will give tips on good public relations through servicing of heating equipment.

Messrs. Hazel, Shoemaker, Westmoreland and Brigham will discuss natural gas

Turn to page 47, PACIFIC NORTHWEST

C. H. Gueffroy, president, Portland Gas & Coke Company, addressing audience of Pacific Northwest gas industry and community executives, members of press, radio and TV, during luncheon in Portland last month, to explain the values of natural gas to the area. Seated is George McMahon, vice president, Westcoast Transmission Company, Limited.

Based on map by Portland Gas & Coke Co.

The U.S. section of the system will be built and operated by Pacific Northwest Pipeline Corp., except for the Colorado Interstate Gas Co. lateral to Denver and the El Paso Natural Gas Co. lateral to the Nevada-California border. In Canada, the system will be operated by Westcoast Transmission Co., Ltd.

American Gas Journal FEATURE

How It Works . . .

The Coleman Gas Motor Air Conditioner

. . . a big step in gas industry research

The presentation of a gas-powered air conditioner, by Sheldon Coleman, president, The Coleman Company, Inc., during the recent convention of Southern Gas Association, was accorded such a high degree of interest by utility representatives, that the description and test findings will have widespread interest. A preconvention article in the May issue indicated the area of research and development that has been covered by Coleman; this article is limited to their gas motor evaporative condenser unit.

• THE COMPONENT of the Coleman air conditioner that actually cools the air to be distributed throughout a residence is a coil mounted on top of a hot air furnace. That coil can be adjacent to the furnace, in a location convenient for connection to the air distribution piping system.

A powerful blower passes room air through the coil. Heat absorbed by the coil is carried off by a circulating liquid, and returned to the externally-located gas-powered liquid chiller.

The outdoor location of the chiller unit is part of the basic concept. It has already proved to be practical, and acceptance by home owners is indicated.

The housing is weatherproofed, with acoustical material to absorb operating noises.

This is a completely assembled-at-the-factory unit. It includes all elements of a typical refrigeration system and its own water-saving equipment.

The equipment inside the housing:

Air cooled gas motor;
Refrigeration compressor, connected directly to the motor;
Evaporative condensing unit, with pump;
Liquid chiller;
Liquid circulating pump;
110-v motor starter;
Muffler;
Oil reservoir;
Controls.

Small units for large market

Current designs are for 3-and-5 ton units. The aim, here, is to provide the smaller sizes that fit the largest segment of the residential market.

The evaporative condensing unit, air cooled-wet bulb, uses air to cool the refrigerant. The air is precooled by evaporation of a small amount of water that is reused indefinitely. It has been estimated that this unit saves 97% of the water that is normally required for water cooled condensers.

This application of the wet bulb principle is designed to give extra cooling, reduce pressure at which the compressor must operate and reduce motor load.

The clean air inside the housing provides the gas motor with an abrasive-free operating atmosphere, and high moisture content improves performance. The large volume of cool air leaving the condenser is passed over the fins of the air cooled motor for low operating temperatures. Exhaust gases are so diluted before reaching the outside atmosphere that they are beyond the point of hazard.

The liquid chilling concept permits the gas motor unit to be located outdoors for the advantages of space saving, noise-and-vibration elimination and ease of servicing. Liquid used in the chiller is a chemical solution that operates without danger of freezing at low atmospheric temperatures. The chiller liquid circulates through conventional piping to and from the air cooling coil adjacent to the furnace, indoors, with those coils held at unusually low temperatures.

The lower coil temperature, in turn, chills the house air to lower temperatures to squeeze out more moisture and produce better humidity control.

Installations prove performance

A group of actual installations has enabled Coleman to gather performance data, covering more than a year of service.

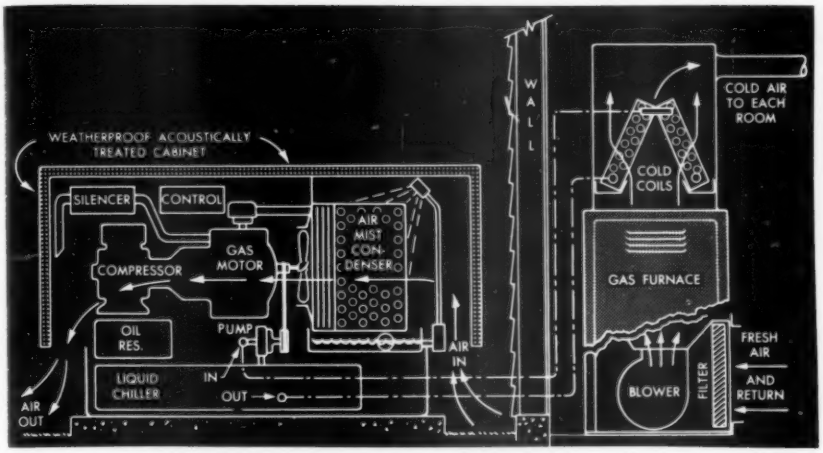
The gas motor system will have an initial cost that is approximately 20% higher than a comparable electric system. Operating costs wipe out that differential.

With natural gas at 70¢ per Mcf, the gas motor system would have an operating cost that is 50% of the cost of a typical electric system using 2¢ current. The gas operating costs include gas, necessary electricity and water.

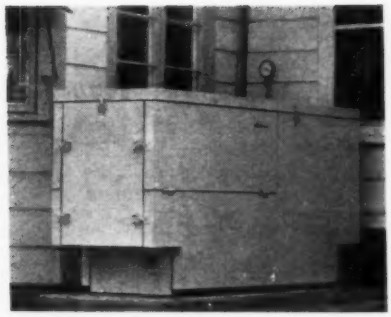
Dependability has been engineered into the unit, with simplified mechanical components that have objectives of long life and freedom from trouble. The starter for the gas motor exemplifies the approach to dependability. It operates from 110-115-v ac, with no need for battery or generator. One starter has been on a test stand for 100,000 starting cycles and is still in operation as this is written.

It is expected that the entire unit will have 2,000 hours of operation between sea-

American Gas Journal FEATURE

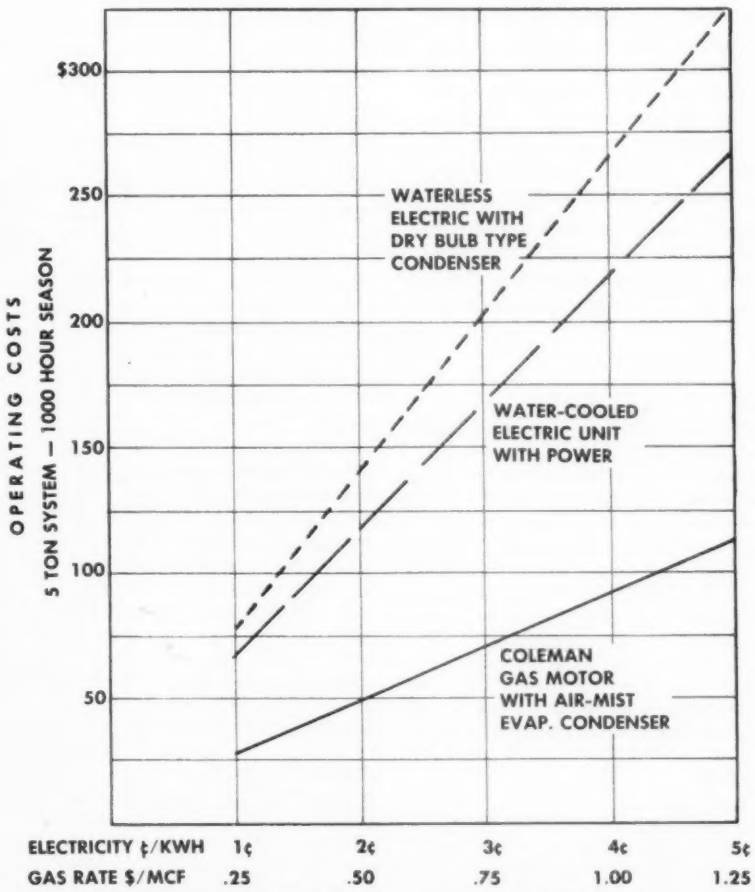


Major components and operation of the gas motor air conditioner developed by The Coleman Company, Inc., are shown here. Refrigerant circuit is entirely self-contained. Chilled liquid lines, supply and return, are the only connections between the remote unit and the air cooling coil inside the house. The air cooling coil is the inverted-V installed in the furnace plenum, here, but it is adaptable to a separate unit with its own blower and connection to house piping system.



This gas operated air conditioning equipment, with all panels in place, is located close to the house walls. That location is not a requirement, however.

OPERATING COSTS OF COLEMAN AIR CONDITIONING EQUIPMENT Compared with Electric Equipment



Gas operating cost includes electricity for accessories at 2¢ per kwh. Gas consumption assumes 1,000 Btu per cu. ft. Other heat values would give proportional costs. Water costs are not included. Water-saving equipment is assumed for electric equipment; it is built into the Coleman equipment.

sonal servicing, such as an oil change, and 10,000 hours between major overhauls.

Noise level and the character of the sound are under control.

The Coleman unit, while designed to operate with the company's heating unit and distribution piping system, is not limited to that equipment. It can be adjusted to work independently of that equipment with any conventional air distribution system.

Unit completely automatic

Complete automaticity has been built in, even to the point of cycling from cooling to heating at short intervals as atmospheric temperatures call for that cycling.

Multiple air coils can be applied to give zoned installations.

Onan Co. worked with Coleman in the development of the gas motor, Minneapolis-Honeywell on the controls and Copeland Co. on the compressor.

The accompanying diagram indicates arrangement of the unit, its operation and its connections to the internally-located air cooling coils. A photograph shows the relative size of the closed unit.

The data collected by Coleman from the test installations provided comparative operating costs, which are given in the chart. —HHC.

DONALD S. SMITH OF PERFECTION IS HORATIO ALGER WINNER

Donald S. Smith, president, Perfection Industries, Inc., is one of 10 outstanding business and civic leaders to receive a 1955 Horatio Alger award. The awards are given annually.

Mr. Smith started work at the age of 12 as a delivery boy, bundle clerk and elevator operator for a department store.

While in high school, he was hired by a Cleveland manufacturing company at 75 cents a day, on a part-time basis, to keep books and handle costs, invoicing and collections. The following year he was secretary-treasurer of the company.

Following graduation from high school, Mr. Smith was hired by Perfection Stove Co. as a clerk, at $35 per month. He advanced to assistant cashier, cashier, chief accountant, assistant treasurer, secretary-treasurer, then vice-president and treasurer. In 1948 he was elected executive vice-president and treasurer. In 1951 he became president and chairman of the board.

Continued from May Issue

Industrial and Commercial Gas Sales Conference

Herman Koester, Jr.
vice president
W. Wirt Young & Associates, Inc.,

. . . said

Probably most serious deterrent to good analytical selling of industrial gas has been lack of training for the men who are trying to sell both equipment and gas load. It is true that in our field, as in any other, it takes 365 days to get one year's experience, there is nothing we can do to expedite this timing. We can make it our obligation in directing sales personnel, to see that full advantage is taken of all available sales aids during a year, so that most benefit may be derived from that year's experience.

The main situation with which we must come face to face is that, over the years, we have not been at all conscientious about our training for industrial sales personnel, which would assist our men in the field to keep up with the ever increasing intricacies met in our customer's problems and thinking. There is no question that men coming into our industry, as we make more and more of an effort to compete in the manpower market, are good, aggressive, intelligent men who have soon fallen victim to what has been our poor and inadequate training system at the level of the individual company—if truly, with the exception of a few conspicuous examples, *it can be called a system at all.* [Italics added. Ed.]

I believe very definitely that in recent years the entire industry has recognized, with increasing emphasis, this basic ill in our sales technique and a swelling tide of sales aid has been building up to help the man in the field. The first and fundamental consideration of proper presale analysis of our installations is to make sure that the man or men assigned to handle jobs are getting all aids and benefits which can be given them, and to see that they are making use of this assistance.

The problem does not start with the man in the territory; it starts directly at the supervisory level and management must more and more set the pace to make sure that personnel handling industrial problems take advantage of sales aids available in order that a better job may be done for customer, manufacturer and utility.

Our competition, particularly electric industry, is leading us a merry chase, selling higher-priced equipment on even higher rates than for gas, and I believe there are more electrically heated furnaces and ovens being installed than gas-fired units.

The situation is not good; but slowly it is moving in the right direction . . .

Presale analysis of industrial gas application breaks down into a problem of three parts:

1. Job analysis,
2. Product analysis,
3. Equipment analysis.

Quite obviously, before we can analyze a job we must know that the job exists and that means an inquiry must have developed. The customer will have directed an inquiry either to a utility or to an equipment manufacturer. You will note, gentlemen, that I said an inquiry to a utility.

I did not specifically say a gas company. If there is a compatible spirit between local gas company and manufacturer so that mutual confidence is enjoyed, and manufacturer feels that by consulting gas utility he will have good sound, capable, analytical assistance, it will be his natural tendency to direct his inquiry through the company. If the same condition holds true with the electric utility rather than the gas utility, he will direct his inquiry that way.

"Reddy Kilowatt" is a real competitor [in this area] with which we must contend. We are actually at a disadvantage in getting inquiries against this competition because every manufacturing concern is a customer of the electric company and that is not true of gas. The power engineers working in our areas really do a job and their acceptance is exceptionally good.

It is certain that the most satisfactory place for a customer to turn with his inquiry is to the local company which is going to serve him with a fuel and live with him in the neighborliness of a mutual business endeavor.

An inquiry, by the same token, directed to an equipment manufacturer, can be a little bit treacherous; for every manufacturer has an ax to grind and an economic obligation to sell his product, and he is certainly going to make every effort to turn the inquiry into a sale. The result might be a satisfactory installation which can stand up against any good competitive analysis, or it may be one that works ultimate damage to customer, local utility, and certainly to that manufacturer. It is obvious that every effort should be made to see to it that the gas company becomes the recipient of customer inquiry, as that is the only way to create the beginning of really rational and fair analysis. This we know to be the case in areas with strong industrial departments and a most successful job of application is done.

Let as assume that the inquiry has been direct to the industrial department of the local gas utility. All we know at this initial point is that something has brought the

DIRECTLY RELATED to the discussion of manpower by Messers Sutton, Wierum and Selzer is the emphatic line of reasoning on the direct approaches to an industrial gas installation, by Herman Koester, Jr. Long an outspoken advocate of sound, long-lived selling of gas and gas equipment for industrial purposes, by adequately-equipped, trained and compensated gas engineers, Mr. Koester figuratively tore into his subject. In his characteristic manner, he pleaded the case for industrial gas—and let the sparks burn wherever they should.

[Space limitations have necessitated a substantial condensation of Mr. Koester's useful and experienced comments—a point of real regret—H.H.C.]

consideration of heat application to the customer's mind, and our first problem is to find the background of the inquiry.

1. May need equipment to fulfill a contract.
2. May need equipment to reduce costs from present levels.
3. May need equipment to control processes currently done on subcontract. Meet requirements of cost and quality.
4. May be expanding into new field.
5. May be at point where transition from batch to continuous operation is demanded.
6. May be changing manufacturing technique.
7. The inquiry may even be curiosity.

It is at that point work begins. Now the salesman must inspire confidence of the customer so that he may build a sound basis for a gas installation. This means an honest-to-goodness business analysis, the customer appreciates that we cannot properly analyze his problem and help him to satisfactory solutions unless he helps us get a background.

We must now get down to the mechanics of what we are going to accomplish, a product analysis. Before equipment of any kind, size or description is considered or discussed, a study must be made, for we must understand the product and everything that goes into it, everything required of it, in order that we may direct our engineering thinking along proper lines. We must not allow any preconceptions.

In analysis, complete product story must be noted and discussed—what is it, what's it made of, where is it going, what are the physical requirements on the piece, how "good" a job is required?

We must present the best piece of equipment consistent with the job to be done; the most economical installation. We must be very careful not to over-engineer a job; that can be just as damaging as under-engineering.

We get to the all important consideration of equipment-selection. Now, analyze every practical means of handling the customer's product. We must make a complete study to come up with the most economic installation, which presupposes the lowest cost per piece or per pound processed, meeting required physical specifications.

The customer's productions must be interpreted into each of various methods in order to determine which is the most satisfactory installation for him. A preliminary cost analysis must be made—equipment amortization, return on money invested in equipment, labor costs, operating costs, maintenance costs, and all other cost items involved. Once done, the various approaches must all be analyzed with the customer; other factors may have to be taken into account. We may find that by inclusion of 2 other major points the balance may be tipped one way or another in favor of a type of equipment. One would be the financial means of the customer and the other required flexibility for the future to fit into conditions which may develop. All these factors add up to a determination of the most economic installation for the customer to consider.

When you get an inquiry, start your presale analysis intelligently, fairly and in an unbiased manner. Where you see a job where gas should not be used, be fair to all concerned and bring that to light early in the game. This will improve your position, even though it is an immediate loss of possible business. When actually selecting equipment, make sure your company will be proud to have it on its lines and the customer in his plant.

Charles C. Eeles . . .

assistant industrial-commercial sales manager
The Ohio Fuel Gas Co.

. . . said

What, specifically, do we mean by "dual fuel"?

American Gas Association published 3 definitions, covering combustion equipment for gas and oil:

"*Dual fuel burner:* A burner designed to burn either gas or oil but not both together.

"*Gas—oil burner:* A burner designed to to burn gas and oil simultaneously.

"*Combination gas and oil burner:* A burner which can burn either gas or oil, or both together."

The dual fuel type is essentially 2 burners—one for gas, one for oil—with the fuel used at any time depending principally upon relative cost or supply considerations.

The gas-oil type is designed to burn a carefully predetermined mixture of the 2 fuels, for certain operations producing a result far superior to that attainable with either fuel alone.

The combination type is one so designed it can operate either as a dual fuel or a gas-oil burner.

Each type serves best under certain specific conditions.

But, more important than the 3 types of combustion equipment they describe, these definitions point out the course we must follow toward a profitable and permanent industrial load. Nothing is of greater importance to the future of industrial gas than our recognition of the creed they suggest and our firm resolve to adhere strictly to the principle established.

Dual fuel combustion. Its objective is equipment which will operate well on gas, yet be almost instantaneously convertible to good oil operation at the press of a button or turn of a valve.

Development of severe seasonal peak loads by natural gas companies make large volume off-peak sales and peak-shaving industrial curtailments an unfortunate but accepted practice in many areas. This explains our industry's acceptance of Dual Fuel equipment. But, the load involved hangs treacherously on the relative Btu-cost of gas and oil. Little, if any recognition can be accorded the form value of gas, its superior performance, its more effective application, the way it can be built right into an operation to make a better product or one which can be produced in no other way.

Consequently the only effective means of holding load served by dual fuel equipment is to meet our competitor's cost per Btu delivered to the burner. This degrades our superior fuel and makes us constantly susceptible to loss of load unless we are willing to reduce our income through rate adjustment.

Gas-oil combustion. Its development centered chiefly in the forging industry which has historically fired its box furnaces with heavy oil. Immense tonnages of steel are lost annually through heavy scale formation. Because of incomplete atomization countless gallons of oil drizzle away down the furnace wall to form slimy pools of a wasted natural resource. Other unatomized oil drops squirt unburned through the flame. Some land on the billets carburizing hard spots which bring excessive tool breakage in the machine lines. Still others pile up refractory-destroying carbon deposits on the furnace walls.

But, with all its faults, the highly luminous oil flame provides rapid heating, produces a readily workable billet and a scale which is easily dislodged by "blocking" blows of the hammer.

The secret of oil's success was recognized as its luminous flame. Many means were tried unsuccesfully to produce a comparable gas flame. Just as we approached a state of complete despair the solution miraculously appeared in burners fueled with 10-to-30% oil and the balance gas. Results were phenomenal. Flame luminosity was even greater than with oil alone. Heating speeds increased thus decreasing scale formation. What scale did form proved to be easily removable by the blocking blows. Those pesky oil droplets which carburized hard spots on the forgings, built up refractory-destroying carbon deposits on furnace walls, and drizzled all over the floor to create accident and fire hazards, were eliminated because the gas flame completely atomized and then consumed every bit of oil.

At the same time, gas men and industrial technologists are rapidly developing additional uses for this combustion system

Turn to page 39—SALES CONFERENCE

THERE ARE MEN in the gas industry who react with spontaneous violence to any mention of dual-fuel installations. Why, they ask, promote our most powerful competitor in industrial fuel sales? Indeed, we have asked the same question. There will be a better answer, some day, than the answers presented here by Messers. Eeles, Campbell and Reed. But, as practical gas men, they are working with the facts as they find them. — H.H.C.

Price Indexes: Gas, Other Fuels and Electricity

(1947-1949 = 100.0) Source: Bureau of Labor Statistics, U. S. Department of Labor

	1955				1954									1953
	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Jan.	Jan.
GAS														
Space heating	119.5	119.6	119.2	117.3	116.4	115.7	115.5	114.6	114.5	114.4	114.3	114.5	113.6	108.9
Non-space heating	112.2	112.2	111.3	111.1	110.6	109.8	109.7	108.8	108.8	108.9	108.8	108.9	108.8	106.4
Natural														
10 therms	101.7	101.5	101.4	101.0	100.9	100.6	100.5	99.4	99.5	99.9	99.7	100.0	100.0	98.3
25 therms	116.2	116.3	116.1	115.8	114.8	113.9	113.7	112.3	112.2	112.5	112.3	112.6	112.2	108.9
Manufactured														
10 therms	111.5	111.5	111.2	111.2	111.1	109.5	109.5	109.5	109.4	109.2	109.4	109.4	109.4	106.9
25 therms	110.8	110.8	110.6	110.6	110.5	110.3	110.3	110.3	110.2	109.4	109.6	109.5	109.6	107.8
Mixed														
10 therms	105.2	105.2	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.2
25 therms	102.2	102.2	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.0
All types combined														
10 therms	108.5	108.3	106.6	106.4	106.3	105.6	105.6	105.0	105.1	105.2	105.2	105.3	105.3	103.5
25 therms	116.1	116.1	115.8	115.5	114.7	113.9	113.8	112.7	112.6	112.7	112.6	112.8	112.5	109.6
ELECTRICITY														
Composite	105.8	105.8	105.8	105.5	105.5	105.5	105.2	104.9	104.8	104.8	104.5	104.5	103.8	104.4
SOLID FUELS														
Bituminous—All sizes combined	119.6	120.4	120.4	120.4	120.2	119.9	119.4	118.7	117.9	117.4	117.2	117.2	120.7	119.8
Anthracite—All sizes combined	129.6	131.2	131.2	130.9	129.8	129.2	128.5	126.5	126.4	124.7	124.1	123.1	135.0	135.9
PETROLEUM														
Fuel oil No. 2	125.1	125.0	125.0	125.0	124.2	121.2	121.0	118.8	118.5	117.7	117.7	118.1	121.9	116.6

Sales Indexes: Gas and Electricity

To ultimate consumers by Utilities and Pipelines

Seasonally adjusted (1947-1949 = 100.0) Sources: American Gas Association and Edison Electric Institute

	1955			1954										1953
	March	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	April	March	Jan.	Jan.
Gas	212.5	216.9	206.0	198.3	195.7	190.0	171.7	178.8	180.6	180.2	176.2	174.9	183.2	194.8	172.9
Electricity	187.1	184.0	180.1	178.7	175.0	175.9	173.1	175.6	177.7	174.6	168.6	164.8	162.1	161.5	147.9

Shipments: Residential Appliances

(000 units) Source: Gas Appliance Manufacturers Association

	1955			1954										1953
	April	March	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	April	Jan.	Jan.
Ranges														
Gas	181.6*	217.3	186.2	152.9	145.7	174.0	197.1	203.9	179.4	134.5	174.3	163.8	172.4	137.0	169.2
Electric	—	148.8	145.4	156.2	97.2	90.7	96.4	113.8	86.8	91.4	98.1	94.5	106.0	116.4	124.8
Water heaters														
Gas	260.1*	263.1	214.7	200.0	166.8	179.1	202.0	205.5	207.1	190.3	206.7	195.6	200.8	164.4	189.9
Electric	—	84.9	75.4	62.4	49.4	57.1	63.7	80.4	66.1	66.6	73.0	69.8	70.0	53.9	62.3
Furnaces, gas	63.9*	53.7	47.7	50.7	50.3	64.3	79.0	82.0	75.4	53.1	57.3	49.9	43.6	31.0	31.1
Boilers, gas	5.9*	5.0	3.7	3.7	Note †	7.0	10.8	10.9	8.9	6.0	6.2	6.0	4.3	2.9	2.7
Conversion burners	9.3*	7.4	6.4	5.2	9.2	16.0	32.2	35.9	29.4	19.9	19.7	22.5	14.7	8.8	9.7

* Preliminary totals. † GAMA is reevaluating all 1954 data on boilers.

Index of Yields: Selected Utilities Stocks

Expressed as percentages

	1955			1954										1953
	May	April	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Jan.	Jan.
Transmission companies	4.13	4.04	3.94	4.01	4.25	4.27	4.40	4.40	4.17	4.17	4.25	4.04	4.08	4.21	4.04
Transm. and distrib. companies	4.78	4.80	4.91	4.87	5.00	5.08	4.69	4.70	4.61	4.67	4.88	5.01	5.01	5.39	5.02
Manufactured & mixed companies	4.79	4.71	4.72	4.48	4.57	4.88	4.72	4.38	4.16	4.26	4.36	4.45	4.46	4.66	4.87
Class "A" electric companies	4.34	4.25	4.36	4.07	4.13	4.20	4.37	4.46	4.36	4.31	4.31	4.60	4.64	4.92	5.08
Class "B" electric companies	4.63	4.57	4.60	4.55	4.68	4.72	4.69	4.77	4.74	4.70	4.78	4.83	4.94	5.14	5.19

This is a straight arithmetical index of comparative yields obtainable on selected gas and electric utility common stocks. The companies comprising this index were selected by AMERICAN GAS JOURNAL as providing a cross-section of each industry. No effort has been made to weight the average to give effect to changes in capitalization or in dividend rates because yields afforded on issues reflect such changes. The index is designed to show rate of return and not necessarily market movements of stocks comprising it. Index is compiled from: transmission companies, 5; transmission and distribution companies, 5; manufactured and mixed gas companies, 4; class "A" electric companies, 4; class "B" electric companies, 5.

Bad Timing of New Utility Bonds Last Month Reflected in Slow Sales

by John F. Falvey
Financial Editor

• WITH THE EXCEPTION of rising interest cost on new borrowings, corporate news has been mostly to the good during recent months. Net profits and dividend disbursements have been on the increase, and this has been accompanied by an encouraging level of new common stock offerings.

According to compilations made both by Council of Economic Advisers and by First National City Bank of New York, corporate profits in the initial 1955 quarter were up over the corresponding 1954 period by 27-to-30%, with every indication that the present quarter will be as good or better on a comparable year-to-year basis.

Climbing at a $3,200-million annual rate in the March quarter, corporate profits before taxes were at a $40-billion annual rate, against $36.8-billion which prevailed in the closing quarter of 1954; profits after taxes advanced to $20.3-billion annually, from $18.7-billion in the final quarter of 1954.

From the latitude thus given them, corporate managements of companies, whose stocks are listed on New York Stock Exchange, paid out as dividends the record sum of $1,671,249,360 during the first three months of 1955, according to the official Exchange magazine. This payout represented an increase of 9.4% above dividend disbursements made on the same stocks in the first quarter of 1954.

On a national basis, according to Department of Commerce figures, all companies which publish their financial reports paid out in dividends nearly $3-billion in the first quarter this year, for a gain of about 7% above disbursements in the first quarter of 1954.

Looking inside the tabulations on earnings, it is to be noted, however, that while the averages showed spanking increases, about one-fourth of the companies comprising the First National City Bank list experienced decreases in profits.

CNP heading for new high

Even beyond the currently favorable second quarter, prospects seem to be promising, with new records anticipated by economists in industrial production, construction, retail sales, state and local expenditures, and in average hourly and weekly earnings. In his recent address to the annual convention of National Federation of Financial Analysts' Societies, Roy L. Reierson, vice-president and economist of Bankers Trust Company, New York, estimated gross national product this year at about $375-billion (30% better than the previous, 1953, and 5% above 1954) and net profits after taxes this year might be 15% or more above the 1954 figure.

Of the approximately $2,600-millions of new corporate security offerings which came to market in the first 3 months of this year, about $760-million — 30% — constituted common stocks. This exceeded by $460-million the total of common stock sales made in the first quarter of 1954.

But while this percentage of common stock offerings to the total is encouraging, the timing of corporate managements in bringing new bonds to market during the recent past has left much to be desired.

Timing off for 3 utility issues

No less than $10-million of new utility bond offerings hit the market in 3 days late in May, with the result that acute indigestion developed. At the time of this writing no less than about three-fourths of the new offerings—$60-million Detroit Edison 3¼s, $6-million Brockton Edison 3⅜ths and $8-million Washington Gas Light 3½s—remain practically intact in the hands of the investment banking firms which purchased them from the issuing companies.

"Unless we have some miraculous event which changes the whole course of the bond market," a leading observer of the market asserts, "the underwriters stand to take a sizable loss in these 3 issues."

Where the Detroit Edison bonds eventually might find their way into willing buyers' hands is problematical at the moment, but it is significant that the price of 99.39 paid the company by the underwriters, on a 3¼% coupon, gave the company a recent borrowing cost of 3.29%, which was away above the 2.9431% basis on which it was able to sell $40-million of bonds in March 1954.

The timing in this instance was bad, not only from the standpoint of "bunching" new corporate issues into too-short a period, but doing that so shortly after the Treasury Department took a drubbing on its recent refunding operation. Treasury had to pay off in cash some $709-million—18%—of its maturing obligations which it had hoped it would be able to refund.

Interest rates had been trending upward gradually for several months, even before the recent corporate financing debacle, with 14 basic points being added to the interest cost on prime quality corporate bonds. In the week ended May 19, these were quoted on a 3.03% basis, against 2.89% at the close of 1954.

On the question of money policy, students who follow the money market point out that the tightening in reserve bank positions and the rise in interest rates has not as yet meant any active restriction of credit. The question of the moment is whether current trends will continue and lead to growing restraints on credit.

Obviously, the answer depends largely on what course the monetary authorities decide to take. In this connection, the Chase Manhattan Bank of New York believes that two basic characteristics of the current situation will wield the greatest influence. It points out that the economy has not achieved full recovery. Seasonally-adjusted unemployment in March stood at 2.8-million, which was 4½% of the labor force. This compares with a full recovery goal of about 3%. On the other hand, the rate of increase in the use of credit in the stock market, in housing and in installment sales requires some caution.

"These two trends," Chase Manhattan comments, "pose something of a dilemma. To support the rise in business activity, the Federal Reserve should supply reserves to the banking system so that the increasing needs for credit can be readily met. To prevent a possible over-question of credit in specific fields invites a policy of restraint.

"The precise path the monetary authorities will take between these two trends can't be foreseen. Obviously, much will depend on the pace of the advance in general business activity in the months ahead. However, so long as the economy is below full capacity and the price level remains stable, a policy of active restraint (like that in 1953) seems most unlikely."

Personal credit being tightened

In the face of rising personal income, lending institutions recently have been tightening their credit requirements. Aided by rising factory employment, personal income in the month of March alone increased by some $2-billion, to $294-billion, for an annual rate about $9-billion above the level of a year earlier. Coincident with this announcement by the Commerce Department, a survey spot-checked throughout the country disclosed that institutions almost universally are increasing their down-payment requirements on new home loans and are speeding up the repayment periods.

This step by the lending institutions, if carried far enough, will serve to place a brake on the one segment of the Nation's economy which has been on the verge of getting-out-of-hand. In fact, the piling up of home mortgages, often with little or no down payment and with repayment periods ranging up to 30 years, gave tremendous impetus to the $10-billion rise in personal debt (including home mortgages and consumer debt) last year, to a record figure of more than $105-billion at year-end.

Fears on the part of economists had been engendered on 3 main points in connection with this sharply-rising consumer debt total. One school of thought was that the debt increase would be reflected in a growing credit risk; another that sharply rising debt service would be cut into both spending and saving activities of consumers; and the third that there might be quite an economic setback attending a tapering-off of the debt rise.

Turn to page 44—FALVEY

INDEX OF YIELDS:
SELECTED UTILITIES STOCKS
See bottom of facing page.

American Gas Journal FEATURE

How Courts View Wide Range Of Gas Company Activities

By Leo T. Parker

Attorney at Law

●SOUTHERN AND SOUTHEASTERN gas company executives have raised a number of interesting legal questions, the answers to which are widely important. It is felt that the related higher court citations will assist in the preparation and actions of unavoidable suits.

"Can a state, county or city levy on a gas company an occupation tax and also an additional tax for the 'privilege' of doing business?"

Modern higher courts consistently hold that a state may enact valid law for reasonable taxation, which may include an occupational tax and also an additional tax for the privilege of doing business. However, counties and municipalities can pass valid tax laws only strictly according to constitutional clauses and state statutes. Moreover, state officials cannot collect taxes not clearly authorized by state laws.

For illustration, in Southwestern Gas & Electric Co., v. State, 190 S. W. (2d) 132, it was shown that a state legislature passed a law which provides that public utilities must pay occupation taxes but shall not be required to pay additional store or sales taxes for the privilege of selling gas and electric appliances.

The state sued Southwestern to collect these latter taxes for several past years, because the gas company sold, in addition to appliances, many other items of general merchandise.

The higher court held that, since the company paid the "occupational" taxes, it was not required to pay additional taxes. The ruling said, "The power of the Legislature to classify as a separate business for purposes of taxation, the operation of gas or electric utilities, can not seriously be questioned . . . There is no merit in the State's further contention that some of the enumerated articles sold in [Southwestern's] stores in question were other than electric appliances, such as water pumps, ranges and domestic refrigerators."

Also, this court clearly held that the term "gas and electric appliances" include all items of merchandise which use gas or electricity in their operation.

Gas companies vs. common carriers

Recently a gas company executive made this statement: "For many years I have read your legal writings in AMERACAN GAS JOURNAL but one subject you have not covered is the legal difference between overcharge and discrimination of gas rates. I have heard it said that these differences are based upon old laws pertaining to common carriers. Is this so, and if so where are the connections?"

After a review of the complete law on this subject, it is evident that our courts recognize that, from a legal standpoint, gas companies and common carriers are similar, particularly when legality of rates are involved.

These courts hold that, in the evolution of gas rates, present rate laws sprung from the old common law that regulated common carriers many years ago. Today, our state laws, and the higher court decisions, do not distinctly differentiate details and entirely eliminate the widespread rate confusion which sprung from the ancient or common law.

Actually, there is not a vast legal difference between overcharge and discrimination of gas rates. In fact, our courts sometimes have considerable difficulty in defining and determining these exact legal differences. One higher court decision, decided several years ago, reversed 2 lower courts which held a gas company liable for payment of considerable money to a gas consumer for "overcharge." The Supreme Court reversed the verdict because it decided that the litigation involved discrimination, and not overcharge.

As previously stated, the laws pertaining to gas corporations and common carriers are similar in many respects when overcharge or discrimination of rates are involved. At common law, a common carrier of merchandise was not under any obligation to treat all customers equally. He was bound to accept and transport merchandise for all who requested services and who were willing to pay a reasonable compensation. But, the fact that the carrier charged one customer less than another was only evidence to show that a particular charge was unreasonable, and nothing more. There was nothing in the common law to hinder a carrier from transporting merchandise for favored individuals at an unreasonably low rate, or even gratis. This rule of law was upheld in a very early decision by the English House of Lords, in Directors, Great Western Ry. v. Wm. Richard Button, L.R.4 H.L. 237.

"At common law a person holding himself out as a common carrier of goods was not under any obligation to treat all customers equally," this decision said. "The obligation which the common law imposed upon him was to accept and carry all goods delivered to him for carriage according to his profession (unless he had some reasonable excuse for not doing so) on being paid a reasonable compensation for so doing."

On the other hand, the old law held that if the carrier refused to accept merchandise for transportation, the shipper could recover damages. And, if the carrier charged a rate unreasonably high, in consideration of rates charged other customers, this customer could only sue and recover from the carrier the overcharge.

There was nothing in the old common law to hinder a carrier from serving favored individuals at unreasonably low rates. See Supreme Court v. Weld, 73 S. W. 529.

During the past few years, however, the courts as well as new laws require equality in these rates.

Therefore, the present tendency and weight of courts are in favor of the doctrine that common carriers, and all other public utilities, have the *quasi-public* duty of serving on equal terms. It is, therefore, not permissible for any public utility corporation to charge different rates from different persons for an identical kind of service, under identical conditions.

Name is important

"If a gas company employs a broker or agent to buy real estate without giving the seller information that the gas corporation is the real buyer, is such a contract valid?"

According to a late higher court decision, the answer is no.

In Ash Grove Co., v. White, 238 S. W. (2d) 368, the testimony showed these facts: A corporation's officials wanted to acquire certain real estate. The corporation's executive vice president authorized a real estate salesman, Miller, to buy certain farm property for $60,000, but instructed the salesman "not to disclose the identity" of the corporation. Later Miller contacted one White, owner of the farm land, and told him that an elderly person of means would buy the property as an investment and he would probably run beef cattle on it.

Not knowing that the corporation was the real buyer, White signed a contract to sell his farm land for $60,000.00. When White learned that the corporation was the buyer he filed suit to rescind the contract. The higher court held in favor of White, and said, "It is a general doctrine that, if either party to a transaction conceals some fact which is material, which fact is within his own knowledge, and which it is his duty to disclose, he is guilty of fraud. Miller deceived and misled defendant (White). The statements may have been thought by him to be merely clever ways to induce the sale and yet follow the instructions of his principal. But his statements were at least constructively fraudulent."

This court explained further that a seller is not bound to disclose all facts which, if known by the buyer, would prevent or tend to prevent his making the purchase. On the other hand, if the purchaser not only remains silent but makes any statement which tends to a suppression of the truth, or covering up or disguising the truth, or to a distraction of the seller's attention or observation from the real facts, then the line is overstepped, and the concealment becomes fraudulent which entitles the seller to rescind the contract.

Right to cut off gas supply

"If a gas company has a contract to supply gas to a consumer for domestic uses, is the corporation liable to the consumer who, while using gas for business purposes, is damaged because the corporation cut off his gas supply?"

Modern higher courts consistently hold that a gas company cannot under any circumstances be held liable in damages for failure to supply gas when the contract with the consumer does not contemplate supplying gas for a particular purpose.

Operating revenues and income; February, 1955

Operating revenues of natural gas pipeline companies totaled $171,309,995 in February 1955, and $1,650,246,621 for the 12-month period, representing increases of 21.8% and 13.7% over revenues received in the like period of 1954.

Utility operating income for the month of February amounted to $28,242,500 and for the 12-month period to $260,480,245, higher by 19.5% and 13.4% than the amounts in those periods a year ago.

Net utility plant of the companies aggregated $4,216,087,272 at the end of February 1955, an increase of 7.7%.

Net income for February 1955 was $20,067,641, up 19.1% from the February 1954 net. For the 12 months ended February 1955, net of $168,698,088 represented an increase of 6.3% over the comparable period ended February 1954.

Gas sales to other gas utilities for resale, the principal business of these companies, for the month were 520,768 MMcf., 19.3% over February 1954. Sales to ultimate consumers during this month were 98,056 MMcf., a decrease of 0.6% from February 1954.

Operating expenses of the companies during the month of February 1955 totaled $107,369,842, up 23.8% over February 1954. The cost of purchased gas, the largest item of operating expenses, amounted to $76,938,207, an increase of 23.3% over the 1954 cost. The volume of gas purchased in February 1955 amounted to 553,228 MMcf., 12.7% higher than purchases made last February. On a 12-month basis, purchased gas for the period ended February 1955 cost $806,287,641, or an increase of 16.8% over the cost in the comparable 1954-period.

Gas transmission expenses, the second largest item of operating expenses incurred by pipeline companies, amounted to $12,046,206 during February 1955, an increase of 12.8 over last February. Transmission expenses for the 12 months ended February 1955 were $136,258,524, 12.4% higher than expenses for the comparable 12 months in 1954.

FPC announces new organizational changes

The Commission has announced several organizational changes, including the transfer of all housekeeping operations into a new Division of General Services under the Office of Administration, and the establishment of a new Office of Public Reference, which will handle all information activities, including contacts with the general public, the press, and industry.

Office of Public Reference will take over functions of Public Reference Section and Division of Publications. Consolidation of these functions will place in one office the responsibility for all information to representatives of the public, press and industry. William L. Webb is Acting Chief of the new office, reporting directly to Executive Officer Henry R. Domers.

Office of Administration, headed by J. Kay Lindsay, will consist of Division of Budget and Finance, Division of Personnel, Division of General Services and Library. In general, the action transfers all miscellaneous administrative service functions from the Secretary's Office and from divisions of Budget and Finance and Personnel

General Services Division will control all communications; maintenance of the general files; administration of a records management program; control of dockets and all formal filings; purchase of supplies and equipment; property accountability; assignment and control of office space; passenger traffic functions; map and drafting activities; duplicating; and stenographic and messenger services.

Robert W. Blakeley heads General Services Division.

Commissioner Draper dissented on the action; Commissioner Smith did not participate.

Several Decisions on Panhandle Deliveries

Proposals by Panhandle Eastern Pipe Line Co. to reduce natural gas deliveries to Michigan Consolidated Gas Co., and to cut off service entirely to the Gas Service Co., were dismissed in a decision filed by a presiding examiner.

The decision is subject to review by the Commission, either upon appeal by parties to the proceedings within 20 days or upon FPC-motion within 10 days thereafter. If no review is initiated within this 30-day period, the decision becomes final.

The presiding examiner at the same time authorized Panhandle to abandon immediately 1 MMcf per day of the 18 MMcf daily delivery to Texas Gas Transmission Co., with the remaining service to be ended not later than next January 1. Texas Gas recently was authorized to construct new facilities to serve Indiana Gas and Water Co., an existing customer, without using gas from Panhandle. This authorization was conditioned on Texas Gas withdrawing its objection to Panhandle's proposed abandonment of service.

The decision also authorizes and directs Panhandle to supply gas to Auburn, Ill., with deliveries limited to a maximum of 500 Mcf per day until next January 1, or earlier if Texas Gas completes its project prior to that time, making additional gas available on Panhandle's system. After that, Auburn will get its full request of 1 Mcf daily.

In a similar ruling, the presiding examiner made permanent an interim order issued, subsequently affirmed by the Commission, directing Panhandle to establish connection with facilities to be built by Northern Indiana Fuel and Light Co. Deliveries are limited to 1,500 Mcf per day until Texas Gas completes its project; maximum increases to 4 MMcf daily.

The decision also sets up procedure to be followed by Panhandle whenever it is unable to supply all demands of resale customers on its Liberty Lateral in Missouri. Panhandle had proposed to distribute the present capacity of the Liberty Lateral by cutting off service to Gas Service entirely, by reducing service to Central West Utility Co., and by increasing deliveries to Missouri Power & Light Co.

The presiding examiner's decision provides that deliveries to Louisburg Gas Co. shall be limited to 550 Mcf per day, with volumes delivered to Central West, Gas Service, and Missouri Power not to exceed deliveries on January 21, 1954. This continues the provisions of the interim order, except as to Louisburg, where delivery of 4 Mcf additional is permitted.

FEDERAL Power Commission

Denies Petition by State Commissions on Producers

The Commission has denied a joint petition by the public service commissions of Maryland and West Virginia, the Virginia State Corporation Commission, and the District of Columbia Public Utilities Commission, requesting suspension of rate increases, already in effect, by a number of undesignated independent natural gas producers.

The four commissions directed their petition against the producers' rates on which Tennessee Gas Transmission Co. based a proposed increase in its wholesale natural gas rates. The Tennessee increase, which totals about $8,616,000 per year, was suspended November 26, but has been in effect, subject to refund, since December 15.

The petitioners claimed that they did not know the identity of the producers, and said that despite their resonable efforts, they "have been unable to ascertain this information." FPC pointed out that producers from which Tennessee purchases gas are identified in data filed in support of its rate increase, together with the amount of each proposed increase. Whether the producers have filed and put into effect the higher rates is a matter to be established by Tennessee in its rate suspension proceeding.

The petitioners are asking the suspension of rates which are already in effect, FPC said. It must act within the statutory notice period provided by Natural Gas Act. FPC pointed out that suspension is determined on the basis of data filed in support of the rate increase and in FPC's best judgment in carrying out the provisions of the Act. After a filed rate becomes effective, it may not thereafter be suspended.

Transcon and Mich-Wis Rates Made Effective

Orders have been issued making effective, subject to refund, wholesale natural gas rate increases by Transcontinental Gas Pipe Line Corp. and Michigan Wisconsin Pipe Line Co.

Transcontinental's increase, totaling about $2,176,000 per year, was suspended by an order issued February 18. Michigan-Wisconsin's increase, amounting to approximately $1,526,200 annually, was suspended by an order issued February 24. Both increases were suspended until April 1.

Gas Industry news

C. S. STACKPOLE APPOINTED AGA MANAGING DIRECTOR

Chester S. Stackpole, general sales manager, heating and cooling division, Union Asbestos & Rubber Co., has been appointed managing director of American Gas Association. He joined the association June 1, succeeding H. Carl Wolf, who resigned earlier this year because of illness.

Chester S. Stackpole

Before his association with Union Asbestos & Rubber Co., Mr. Stackpole was vice president, domestic sales, advertising, sales promotional and service activities, Williams division, Eureka Williams Corp.

For 3 years previous to joining Eureka Williams in 1951, he served as vice president and general sales manager, Airtemp division, Chrysler Corp. and as vice president, Airtemp Construction Corp.

The AGA executive committee, which selected Mr. Stackpole, is well acquainted with the new managing director, F. Marion Banks, AGA president, declared. For more than 20 years, Mr. Stackpole served as assistant manager, and then manager of merchandising, sales promotion, and domestic gas and electricity sales for Baltimore Gas and Electric Co.

Mr. Stackpole was born in Lynn, Mass., and was graduated from Brown University. He joined Stone and Webster, Inc., and from 1922 to 1928 was engaged in sales, sales management and promotion activities in companies owned or managed by that company in New England and Virginia.

During 26 years of service in the utility industry, he has been very active in AGA affairs. He has served and headed many committees, including the house heating committee, and was a vice president of AGA while serving as chairman of the residential gas section.

APRIL CONSTRUCTION CONTRACTS HIT MULTI-RECORD LEVELS

Contract awards in April for future construction in the 37 eastern states shattered many previous records, according to F. W. Dodge Corp. The total, $2,322,085,000, was 37% higher than April 1954.

F. W. Dodge noted that April established these new peaks: the highest construction dollar-volume in history, except May 1951—brought the first quarter of 1955 to highest level for any first quarter in history—residential, nonresidential and heavy engineering set new April records and new records for first 4 months—residential contract awards in April were the highest ever reported in any month.

Thomas S. Holden, Dodge vice chairman, said that "continuously rising contract volume is perfectly normal for this strong economy which is expanding so rapidly on many fronts; economic growth urgently demands new structural facilities in all existing categories, and also an ever-widening range of new structural types and of structures built to improve architectural and engineering standards.

"Although this is the eleventh consecutive year of mounting construction volume, there is yet no sign that significant surpluses have been produced," Mr. Holden asserted. "Recent housing figures have developed a great concern as to whether we are overbuilding. I do not plan to start worrying until we can see numerous unsold houses in numerous local markets. You can't see them yet."

5 AGA LABORATORIES MEN ADVANCED

Promotions of 5 men and organizational changes recently made at AGA Laboratories Cleveland, have been announced.

Two veteran engineers, Frank E. Hodgdon and Russell V. Myer, have been named assistant directors. These appointments were made concurrently with the retirement of Kenneth R. Knapp, after 26 years of active service with the Laboratories and 44 years with the gas industry. Ohers promoted were Carl F. Geltz, to chief testing engineer; Thomas S. Leitch, to chief inspection engineer and Frank H. Miller, to assistant chief inspection engineer.

Frank E. Hodgdon

Russell V. Myer

Mr. Hodgdon will have supervision of the Laboratories' standardization program for gas appliances and accessories, as well as the Laboratories' methods activities in connection with approval requirements preparation. He will retain active supervision of the Laboratories' personnel, building and equipment, and administrative services. Mr. Hodgdon joined the Laboratories staff in 1939.

Mr. Myer will head the Laboratories' appliance approval testing and field inspection program. He has been active in appliance testing activities of both Cleveland and Los Angeles Laboratories during the last 19 years. He was appointed Chief Testing Engineer in 1945.

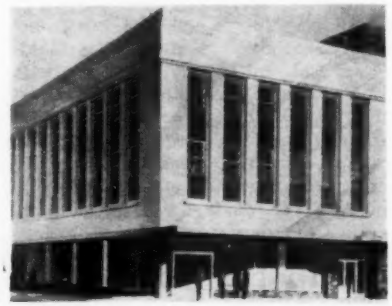
Mr. Geltz began his term of service with the Laboratories as an appliance testing engineer in 1939. He joined the inspection staff shortly thereafter and was appointed head of the department in 1949. In his new position, he will have direct supervision of all appliance and accessory testing sections, as well as the descriptive record services.

Inspection services will be under the supervision of Mr. Leitch, a veteran of 16 years with the Laboratories. Mr. Miller, who will assist Mr. Leitch, joined the Laboratories staff in 1946.

BURLINGAME CORP. READIES NEW BARTLESVILLE BUILDING

August 10 has been set as the date of completion of a 3-story bulding for the new home of the C. E. Burlingame Corp. and its associated companies, in Bartlesville, Oklahoma. The building is located in the center of the business district.

C. E. Burlingame Corp., operates natural gas companies, American Gas Co., Vinita



Fuel Co., Wellington Gas Co., Baxter Springs Gas Co., Baltic Operating Co., United Gas Service Co., Ruth Fuel Co., and Carl Junction Gas Co. They serve about 30 towns in Kansas, Oklahoma and Missouri.

The new building will have a gas year-round air conditioning system.

MANUFACTURERS ASSOCIATION VOICES OPPOSITION TO GAS REGULATION

Federal controls over competitive producers of natural gas set "an astounding precedent" in imposing commodity controls at the source for the first time in the Nation's history, apart from wartime or other emergencies, the National Association of Manufacturers stated recently.

Regulation of natural gas delivery by local public utilities or of transmission of the gas by pipeline, is not in question, NAM declared in a statement.

"Not even a remote semblance of monopoly exists in the production of natural gas. More than 8,000 producers compete in the discovery and production of this vital national commodity. Much time, money and skill go into the exploration for natural gas and its production. It is a risky business; out of every 9 exploratory wells, 8 turn out to be dry holes."

The report noted thousands of independent natural gas producers compete in exploration; they compete in buying drilling

rights from farmers and other landowners and, if they find gas, they then compete to sell it to pipelines.

Federal regulation of gas producers already has reduced incentives for exploration, NAM said, noting that it costs an average of $100,000 to drill an exploratory well. Pipeline planning and construction also has been disrupted by the new natural gas controls, the association observed.

If Federal control of natural gas producers is allowed to stand, the report said, there would be a basis for applying similar controls to coal, oil, lumber, grain or any other commodity.

President Eisenhower's Committee on energy supplies and resources policy and Jerome K. Kuykendall, Federal Power Commission chairman, have expressed their belief that production should not be subject to control, NAM pointed out.

"But the controls are still in being," the association statement commented. "As long as they exist they are a violation of our fundamental commitment to a free competitive system and a potentially dangerous encroachment on every business man."

J. A. SCANLON TRANSFERS TO COLUMBIA SERVICE CORP.

James A. Scanlon, vice president, The Ohio Fuel Gas Co., has been appointed vice president, Columbia Gas System Service Corp. Columbia is the parent organization of Ohio Fuel. Mr. Scanlon also is a member of the board of directors of Ohio Fuel. He assumes new duties, which will be with the system's rate department, beginning July 1.

James A. Scanlon

Mr. Scanlon, in 1922, was a clerk with Logan Gas Co., Logan, O. When Union Natural Gas Co., parent firm of Logan, merged with the former Columbia Gas and Electric Corp. in 1925, he was transferred to Ohio Fuel in Columbus. In 1932 he was made manager of the rate department. In 1944 he was named assistant treasurer, in 1947, assistant secretary.

Ohio Fuel elected Mr. Scanlon treasurer in 1950; vice president in charge of rates, in 1952; and a director in 1952.

LONE STAR BUYS OKLAHOMA COMPANY

Lone Star Gas Co. has purchased the properties operated by Spearman Gas Co., serving Eldorado, Okla. Final consummation of the transaction is subject to authorization and approval by Oklahoma Corporation Commission as well as Federal Power Commission.

METTENET HONORED BY ILLINOIS INST.

The Illinois Institute of Technology alumni association presented its distinguished service award to Arthur B. Bronwell, president, Worcester Polytechnic Institute, Worcester, Mass.; and its service award to Francis X. Mettenet, vice president, sales, Peoples Gas Light & Coke Co.

SELAS STARTS CONSTRUCTION OF NEW $MILLION-PLANT

Work has just started on a new million-dollar plant for Selas Corporation of America, on an 11-acre site at Dresher, Pa., 22 miles north of downtown Philadelphia.

"The new buildings will have almost double our present floor space," said Frederic O. Hess, president. "In addition, there is ample room for future expansion.

"Although we completely modernized our present plant only 3 years ago," he commented, "our rapidly expanding market has made our 77,000 square feet of manufacturing area inadequate."

All reasearch and development activities will be concentrated in a single building specifically designed to provide coordinated laboratory facilities. Production facilities will be arranged for maximum efficiency and versatility in a second building. A third building will house administrative offices.

Special care has been taken to fit the new plant to its rural surroundings. "The new site drops away abruptly from the road," Mr. Hess said, "and we intend literally to recess the buildings into the landscape. The frontage will be completely landscaped to resemble the entrance to a large estate or country club."

The plant site is close to the Pennsylvania Turnpike and backs on a railroad spur, with shipping and delivery activities screened from neighboring residential areas.

Full production at the new plant is expected early in 1956.

ASSOCIATION HIT BY SENATOR IN GAS REGULATION HEARING

Sen. Patrick McNamara (D., Mich.) says oil and gas interests have made a "scurrilous and slanderous" attempt to influence senators considering the bill to exempt producers from Federal regulation.

He lashed Mid-Continent Oil & Gas Association for circulating a press release that was critical of a Detroit official who testified against the legislation.

Quoting R. F. Windfohr, who heads the association, the release called James H. Lee, assistant corporation counsel of Detroit, "unwittingly a victim of Fabian socialist tactics."

A public relations man distributed the statement as Mr. Lee was beginning his testimony before the Senate Commerce Committee.

Newsmen covering the hearing also received statements attributed to Mr. Windfohr, attacking the views of Mayors Anthony J. Celebrezze of Cleveland, David Lawrence of Pittsburgh, Joseph S. Clark of Philadelphia and Frank P. Zeidler of Milwaukee. They also testified against the bill.

Sen. McNamara said, "The oil and gas association trying to bolster a bad case, is attempting to confuse the sub-committee and the American people by these tactics."

WILSON HEADS PERSONNEL CONFERENCE

John M. Wilson, director, employee relations, United Fuel Gas Co., has been elected chairman of the Great Lakes personnel conference of American Gas Association.

Also elected officers of the conference were W. E. Hoare, employee relations director, The Ohio Fuel Gas Co., vice chairman; and Emory A. Manlove, assistant to the vice president, The Peoples Gas Light and Coke Co., secretary.

BALTIMORE ELECTS CRANE CHAIRMAN AND CHANGES COMPANY NAME

At a meeting of the board of directors, Baltimore Gas and Electric Co., Charles P. Crane was elected chairman, in addition to being renamed president. Mason C. Albrittain was elected vice president and general sales manager.

Other officers reelected were J. Theodore Wolfe, executive vice president; Herman L. Gruehn, Austin E. Penn, A. L. Penniman and John H. Wolfe, vice presidents; F. Edward Rugemer, treasurer; Otis E. Smith, secretary; Omar K. Boyd and Edwin J. McKnight, assistant secretaries and assistant treasurers.

The company name was changed, with stockholder-approval, from Consolidated Gas Electric Light and Power Company of Baltimore to Baltimore Gas and Electric Co.

RECORD AT ACCOUNTING CONFERENCE

More than 1,300 delegates from gas and electric utility companies, an all-time record, registered at the National Conference of Electric and Gas Utility Accountants in Chicago, April 25-27. The conference was jointly sponsored by American Gas Association and Edison Electric Institute. It was the 18th annual meeting sponsored by the 2 national utility trade associations.

AGA APPOINTS MANAGEMENT SECTION SEC.

Harold S. Walker, Jr., has been appointed secretary, general management section, American Gas Association, succeeding Harrington A. Rose, who resigned to join the Transcontinental Gas Pipe Line Corp.

Mr. Walker, a Philadelphian, was graduated from the United States Military Academy in 1943. He served with the Army until September 1954 when he resigned with the rank of Major.

MANAGEMENT GROUP SCORCHES WARM AIR HEATING INDUSTRY

Unless the warm-air heating industry initiates and carries through corrective measures in unethical practices pervading consumer-installer relations, its economic position will deteriorate even more than present records indicate, American Institute of Management warned in a management study of manufacturers of coal, oil, and gas-fired furnaces.

"It is in the area of public policy that the Institute finds the greatest deficiencies in the warm-air heating industry," the study asserts. "The Institute believes that the homeowner has not been adequately protected by the warm-air furnace manufacturers. It believes, further, that the industry will have to furnish this protection to the consumer if it is to avoid floundering in a morass of public opinion and discontent.

"Unethical practices, chiefly by retail furnace installers and repairmen are widespread," the Institute report states.

"Furnaces which by the industry's own standards should have been replaced have often been repaired—at the peril of the health and safety of the consumer. Others have been poorly installed. The files of the National Better Business Bureau and its local affiliates contain daily complaints about heating installations and practices which, although generally directed toward individual retailers, reflect inevitably upon the entire industry. Faulty repairs in several cities have resulted in fatal tragedies. It becomes clear then that the problem facing the heating industry in its public relations today is not the establishment of technical standards, but the enforcement of those standards."

The institute recommends:

1. Advising municipal and state agencies concerned with heating standards to accomplish revisions of present practices in conformity with modern heating needs;
2. Establishing sound standards governing when to repair and when to replace heating equipment, a key source of consumer complaint;
3. Arbitrating grievances expressed by heating dealers in their relations with equipment manufacturers.

The Institute also finds the industry needs to emphasize its research and development efforts. According to the management foundation's report, "Dependence on the future in the place of vigorous current research cannot be condoned."

OHIO FUEL GAS READY TO OPERATE STORAGE FIELD

Development of a new Ohio Fuel Gas Co. storage field, near Cambridge, is virtually completed. It will require about a year and a half before the maximum natural gas storage capacity of the field is reached.

Pending completion of the compressor station, gas is currently being stored directly from transmission lines.

Ohio Fuel is a pioneer in the underground storage of gas. This field, known as the Guernsey, is the seventh Ohio Fuel storage field. It is designed to supply gas for the Cambridge-Zanesville-Coshocton area. Started more than a year ago, Ohio Fuel's investment in the field is more than $3-million.

Ohio Fuel geologists figure ultimate capacity of Guernsey at 4.7-billion cf. 2.5-billion cf will have been injected by the beginning of the next heating season.

HOLCROFT RECEIVES TRINKS AWARD

Walter H. Holcroft, executive vice president and technical director, Holcroft & Co., received the Trinks award for achievement in industrial heating. Mr. Holcroft was cited for his outstanding contributions to gas carburizing and carbo-nitriding in heat treating steel.

Two other engineering-executives, selected for contributions to economic and scientific progress in industrial heating and related fields, were similarly honored: Horace Drever, president, Drever Co.; and C. E. Hawke, vice president, Carborundum Co.

A panel of industrial heating authorities bestows the award among candidates nominated by the industry. It was established in honor of Dr. Willibald Trinks, professor emeritus of Carnegie Institute of Technology.

ROCKWELL NAMES ASST. PRODUCTS MGR.

Nelson E. Davenport, sales engineer in Rockwell Manufacturing Company's meter and valve division district office at Atlanta for the past 5 years, has been named assistant gas products manager with headquarters in Pittsburgh. Mr. Davenport will report to J. H. Walters, gas products manager.

MATARESE HEADS BROCKTON TAUNTON CO.

Election of A. D. Matarese as president, Brockton Taunton Gas Co., Mass., has been announced. Mr. Matarese joined the company in 1927 as a cadet engineer, became manager in 1935, and in 1948 was elected vice president and general manager. In the presidency, he succeeds Isaac S. Hall, who retired after 28 years with the company.

8 NEW HALL OF FLAME MEMBERS

Life memberships in the industrial and commercial Hall of Flame, were awarded to 8 men during the recent American Gas Association sales conference on industrial and commercial gas. They are:

Paul C. Grimes, sales manager, G. S. Blodgett Co., Inc.;

James V. Hall, manager, commercial sales, Northern Indiana Public Service Co.;

John D. Haverkamp, supervisor, New Orleans Public Service, Inc.;

Ernest J. Horton, assistant to president, Robertshaw-Fulton Controls Co.;

J. H. Mikula, general sales manager, Milwaukee Gas Light Co.;

Thomas M. Offutt, assistant industrial sales manager, Washington Gas Light Co.;

K. I. Robinson, supervisor, industrial fuel, heating and air conditioning departments, Public Service Electric & Gas Co., N.J.;

G. R. Walton, industrial engineer, United Gas Pipe Line Co.

The total membership in the Hall of Flame is now 152.

SEATTLE PREPARES LINES FOR NATURAL GAS

Five construction jobs totaling $2,506,500—the first phase in Seattle Gas Company's vast program to prepare for the distribution of natural gas—have now been contracted for or authorized, according to Walter S. Byrne, president.

Contracts for two of the jobs already have been awarded. Engineering on the other three is underway, and contracts are expected to be awarded in mid-December. All of the work will be completed prior to July 1, 1956, date for the arrival of natural gas in Seattle.

The construction schedule is to complete main transmission lines to bring natural gas from the company's two city gate locations, north and south of Seattle, into the company's distribution system. The city gate is the point at which the distribution company takes natural gas from the Pacific Northwest Pipeline Corporation's main transmission line.

Charles M. Sturkey, executive vice president and general manager, said all engineering is being done by the company under direction of James F. Gary, superintendent of engineering.

Three new projects authorized by the company's board of directors are:

A 16-in. main transmission line, from the company's south city gate at a point a few miles southwest of Renton, to the Georgetown pumping station, totaling $746,000.

A main transmission line from the company's north city gate, in the vicinity of Bothell, to the vicinity of Mountlake Terrace, totaling $231,000.

A second section of the north main transmission line, from Mountlake Terrace to connect to the center of the company's distribution system just north of the company's plant on Lake Union, totaling $693,500.

Two awards already have been made to install gas distribution mains connecting the company's Georgetown pumping station with the downtown industrial area and across Harbor Island to West Seattle. This project totals $786,000.

Thorn and Marble company, mechanical contractors, were awarded a $249,093 contract for installation of mains in this project. A $50,000 contract as part of the same project has been awarded to Engineers Limited Pipeline Company of Seattle to lay that portion of the pipe which crosses West Waterway at Harbor Island.

This special contract calls for trenching and installing 500 ft of pipe approximately 12 ft below the bottom of the ship channel in West Waterway. The pipe will be X-rayed, tested and wrapped on the surface. A diver will inspect the job under water after the pipe has been laid. Work on the two contracts already awarded is to begin June 15 and to be completed in September.

PEOPLES NATURAL WINS AD AWARD

Peoples Natural Gas Co. won a first place award in outdoor advertising in the annual better copy contest sponsored by Public Utilities Advertising Association.

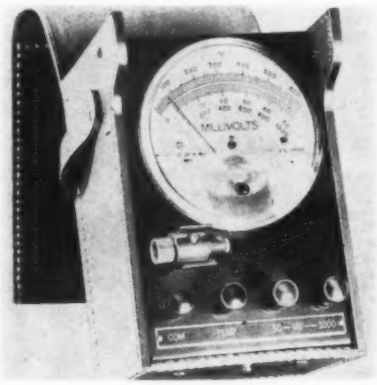
new | Gas Industry equipment

Thermocouple Tester — Robertshaw

A self-contained, combination tester for checking thermocouple output and temperature has been added to this manufacturer's line of instruments and controls.

The tester is designed for convenient checking of the milli-voltage output of thermocouples in both open and closed circuits, from 0-50 and 0-1000. It is suited for single thermocouples or multiple thermocouple installations. It will also check temperatures, within the range from "room" to 650F, of water heaters, ovens, dryers, heat treating installations, and other commercial and home appliances.

The tester will automatically compensate for changes in ambient temperature,



the company said. It is contained in a sturdy carrying case, with a compartment for thermocouples. Replaceable calibrated thermocouples are available.

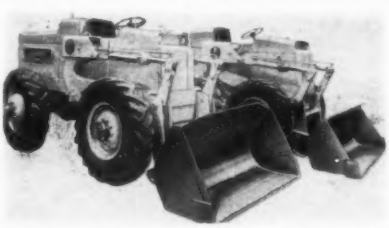
Binding posts are color-coded to prevent connection errors. A vinyl meter front and large meter pointer insure easier reading. The tester is simple to operate and comes complete with instructions. Its packed weight is approximately 3 lbs. 3 oz.

Test Instrument Model 32-JP-4-MV. Robertshaw-Thermostat Div., Robertshaw-Fulton Controls Co., Youngwood, Pa.

Tractor-Shovels — Hough

Two entirely different 4-wheel-drive models of tractor-shovels have been introduced. They have one cubic yard and 1½ yard heaped-capacities.

Among their features is the design permitting 40 degrees of bucket breakout, at ground level, rather than at a 3′ or 4′ carry position, according to the manufacturer.



For maximum loads with minimum effort, a powerful pry-out action is accomplished by using breakout pads on the ground as fulcrum for leverage. Opposing load forces are transferred to the ground through the pads during the breakout instead of to axle, wheels and hydraulic system. These are exclusive, patented features.

Underslung boom-arm design and positioning provides driver with visibility and safety. The need for safety guards has been eliminated.

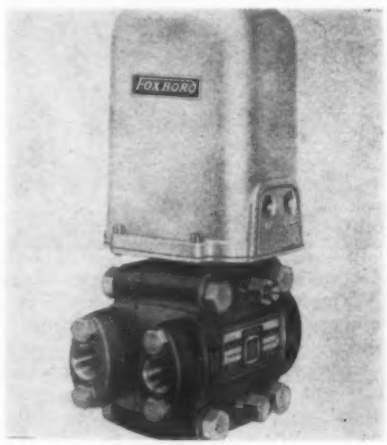
Other features common to both units include sealed, pressurized hydraulic systems; 12-v battery systems on the gas-powered units; battery box and hydraulic oil reservoir are behind driver's seat for easy accessibility. Torque converters are full-reversing transmissions; double-acting hydraulic rams with chrome-plated piston rods; hydraulic brakes and power steering are standard on both models. Lifting and dumping heights are higher than average; both units are available with either gasoline or diesel power.

The loaders are equipped with exterior pick-off outlets for outside auxiliary hydraulic equipment.

Payloaders. Frank G. Hough Co., 960 Seventh St., Libertyville, Ill.

Cell Transmitter — Foxboro

Advances in design have been incorporated in this force balance flow transmitter. It measures differential pressures and transmits a 3-15-psi signal to a receiving, recording or controlling instrument. The transmitter provides continuous adjustment over the entire range of 0-50″ to 0-250″ of



water differential without change of parts.

Unitized construction of 3 basic parts, body, transmitter and air relay, eliminates effects of piping stresses. Operating on force balance principle, the all-metal measuring components and temperature-stable parts maintain calibrated accuracy over a wide range of ambient conditions.

A silicone-filled capsule, with 2 pressure-sensing stainless steel diaphragms, automatically dampens and filters flow noises at the measurement source, yet permits high speed response to actual flow. New also are machined overrange stops for protection up to full 1,500-psi rating of the instrument. It is compact for close coupling to orifice flanges. An external zero-adjustment permits zeroing without removing weatherproof housing. The Unit weighs 21-lb.

Cell Transmitter 31A d/p. Foxboro Co., Foxboro, Mass.

Accident-Prevention Signs — Brady

Self-sticking accident prevention signs in 3 standard sizes 5″ x 14″, 3½″ x 10″ and 2¼″ x 9″, are now available. They include both plastic signs, such as "Danger" and specific signs, such as "No Smoking." Either type can be used alone or in combination with other signs.

Basic accident prevention signs include, Danger, Caution, Information, Directional, Safety Instruction and Radiation Hazard. Signs in wordings and colors conform with

ASA standard Z-35.1-1941. More than 1,000 different accident prevention signs are available.

These signs are made of all-temperature impregnated cotton cloth with a temperature-resistant pressure-sensitive adhesive. Each sign is mounted on a dispenser card. Unskilled personnel can apply the signs by peeling from the card. They stick without moistening to any clean, dry surface and conform to irregular surfaces.

Accident Prevention Signs #145-C., W. H. Brady Co., 727 W. Glendale, Ave., Milwaukee 12.

Utility Ditcher — Gar Wood

This utliity ditcher is heavy-duty, wheel-type designed for digging cross-country ditch and for city gas lines. It digs to a maximum depth of 5′6″ with optional width of cut varying from 16″ to 32″.

A live hydraulic wheel hoist provides fast and accurate positioning of the digging wheel and is operated by one-hand controls from the operator's seat. Lowering and raising digging wheel is completely independent of digging, wheel or crawler speeds.

Soil discharge conveyor shock damage is eliminated by an hydraulic drive; the conveyor is controlled from the operator's seat. Forward and reverse belt drive is provided in a selection of 3 speeds to meet varying requirements. The hydraulic drive is protected from damage by relief valve settings.

All controls are grouped within easy reach; wheel hoist and conveyor controls are panel mounted and steering controls foot operated.

The machine has 16 digging speeds forward, ranging from 0.80′ to 19.10′ per minute. Excavator wheel speeds and traction speeds are entirely independent of each other, making the machine extremely versatile in all digging operations.

Separate clutch and separate brake for each crawler is provided in final drive transmission, giving independent power to each. Two steering pedals actuate combination clutch release and brake application on final drive transmission to give either turn. Transmissions are fully enclosed; gears are precision-cut and run in oil or mesh with gears running in oil; anti-friction bearings are provided for all shafts. There is a choice of 3 engines.

The heavy-duty digging wheel is equipped with buckets that bolt on 1-piece digging rims, allowing for variable bucket spacing. Flat bottom buckets are optional.

Buckeye Model 308. Gar Wood Industries, Inc., Wayne, Mich.

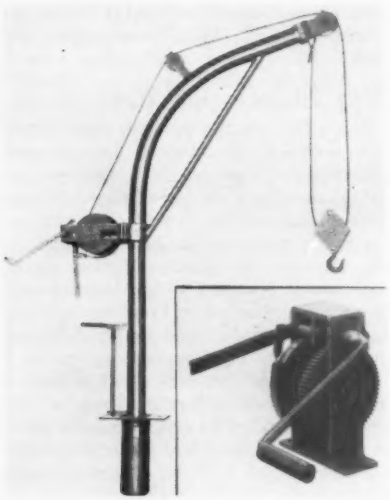
Electrode — Pacific Welding

An electrode, placed on the market by this manufacturer is especially recommended for repair-welding of cast iron. The weld itself is said to be easily machineable under all conditions of deposition. The electrode can be operated from AC or DC; reverse polarity is recommended. Welding current should be as low as possible. It is described as smooth-flowing electrode with good bead contour, easily applied.

Pacific Nickel Cast. Pacific Welding Alloys Mfg. Co., 310 N. Avenue 21, Los Angeles 31.

Cranes and Winches—Watson

Truck mounted cranes and hand-operated winches designed to save labor and shorten loading and unloading time have been announced by the H. S. Watson Compnay. This equipment is part of a broad line of truck mounted and powered tools being developed to increase the usefulness of light and medium trucks according to Frank M. House, vice president of the Watson organization.

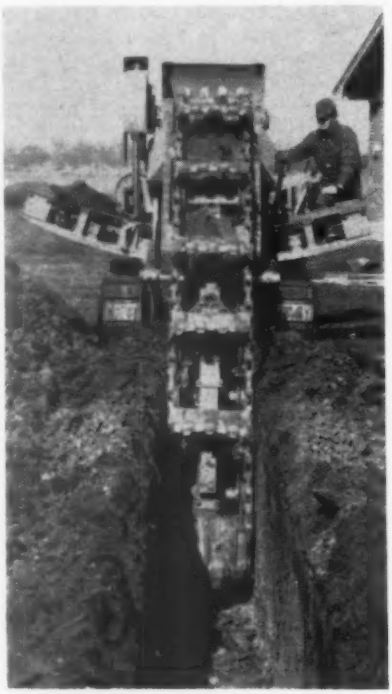


House said that the Watson crane is being produced in 500, 1000 and 2000-lb. capacities. A feature of the Watson crane is the full circle swing which simplifies one man loading and handling.

All crane and hand winches incorporate steel cut gears and a drop forged steel ratchet which is being spring-loaded for additional safety. The winch is available in two styles, each of 1000-lb. capacity. One model features a 6 in. band-type brake and needle bearings. Either item can be easily installed on tractors as well as on trucks.

Trenchliner — Parsons

A ladder-type trenchliner has been developed by the Parsons Co., of Newton, Iowa, with minimum overall dimensions and reduced weight, together with heavy-duty performance or digging capacity. Compact design, low center of gravity and low ground bearing pressure are additional characteristics of the unit, designated Model 155 Trenchliner. Parsons Company is a subsidiary of the Koehring Company of Milwaukee.



Minimum dimensions and clearances allow the machine to work in congested areas normally inaccessible to a trencher of this capacity. Trenchliner produces from 5.8 in. to 12.75 lineal ft. of trench per minute in a range of 30 speed selections by lever control. A higher range of 30 speeds, up to 25 lineal ft. per minute, is made available by a simple sprocket change. With a maximum depth capacity of 8 ft. and widths from 16-26 in. Model 155 is suited for a wide work range including sewer, water, gas mains and services, as well as general utility and construction jobs.

Other outstanding features include: Hydraulically actuated boom hoist that incorporates a positive down crowd; a power shiftable and reversible belt conveyor that discharges soil to either side and at selective distances from the trench wall; friction type cluth for bucket line drive that serves as an automatic safety to protect machinery from shock loads; a choice of 16, 20, or 24 in. buckets to which oversize adaptors can be fitted to increase trench widths by 2 or 4 in.; Parsons reversible and self-sharpening "Tap-In" bucket teeth; a choice of 12 in. flat or 16 in. grouser type tread on full tractor type crawler mounting for excellent traction, stability and low ground bearing pressure. A choice of gasoline or diesel power is available.

Vinyl Coating — Amercoat

A vinyl protective coating that makes possible a sharp reduction of labor costs has been developed. The coating can be applied at a thickness of 10 mils in a single double-pass spray coat, thus providing a dense, heavy film that was previously obtainable only by multi-coat applications. According to the company, the vinly mastic produces its unusual film thickness without sacrificing the chemical and moisture resistance typical of vinyls.

Although this coating has double the solids content of standard vinyl resin paints, it is easily applied with conventional industrial spray equipment. A feature is that the coating does not flow away from edges and sharp corners, and therefore provides extra protection for such areas which are normally more vulnerable to corrosive attack.

Amercoat No. 87. Amercoat Corp., 4809 Firestone Blvd., South Gate, Calif.

MEN at Work

RICHARD W. C. BARR is now Boston branch manager, *General Controls Co.*

F. J. BASSETT has been elected vice president, *Brockton Taunton Gas Co.*

J. J. BURNETT was promoted to field sales manager, *The Foxboro Co.*

WILLIAM J. DARRAGH has been appointed manager, New England district office, Hartford, *General Controls Co.*

H. O. EHRISMAN upped to general sales manager, *The Foxboro Co.*

JAMES L. EMERSON appointed assistant, sales development department, *Chiksan Co.*

C. C. FULLER is now vice president, sales, *The Foxboro Co.*

J. MASON GUILLORY, director of advertising, was elected vice president, *New Orleans Public Service, Inc.*

EDWARD F. HARRINGTON has joined sales development department staff, *Tube Turns.*

JOHN B. HUMPHREY, JR., has been promoted to branch manager, Oklahoma City, *Black, Sivalls & Bryson, Inc.*

EARLE D. MOILES, JR., is new district manager, Boston, *Leeds & Northrup Co.*

JOHN H. RAIDL was appointed sales manager, West Coast district, *Black, Sivalls & Bryson, Inc.*

PAUL K. WELCH is now New York manager, *Leeds & Northrup Co.*

INDUSTRIAL UTILIZATION OF GAS PROMOTED IN NEWSWEEK AD

AMERICAN INDUSTRY IMPROVES PRODUCTION...

THANKS TO Gas

This is a gas-fired drying oven at the John J. Nesbitt Company in Philadelphia. The Company manufactures heating, ventilating and air-conditioning products, ranging from baseboard radiation to large volume blower fan units. This oven is one of the largest of its type in the country. It can take pieces up to 10 feet long on an overhead conveyor. Each can be painted a different color without interrupting the flow of the production line.

Throughout the entire process at Nesbitt's, Gas is installed as part of the line. The flexibility of Gas allows close temperature control in a series of chemical baths and rinses preceding the drying and paint-baking process, and without expensive heat-up periods. The dry-off oven is ready in just 10 minutes, and the paint bake oven is ready in less than 25. Gas is used because it is faster, cleaner, and keeps operating costs down.

The John J. Nesbitt Company finds Gas the most satisfactory method of heat processing for its operation. That's reason enough for you to discuss your problem with your Gas Company's industrial specialist. *American Gas Association.*

Gas utilization in industry was dramatized in a full-page American Gas Association ad in *Newsweek*, May 23. The adaptation of the ad, above, indicates the production advantages of gas in the drying operations of John J. Nesbitt Co., Philadelphia.

L. E. EMERICH

L. E. Emerich, director of marketing, Leeds & Northrup Co., died May 5 at the age of 56.

He joined Leeds & Northrup in 1922 as a sales engineer. Six years later he opened the company's San Francisco office as manager, and was in the Chicago office as manager until 1936. He went to L.&N., Philadelphia, as assistant manager of technical sales and later was named manager of that division. In 1951 he became manager of market development. Three years later he became director of marketing and a member of the executive committee.

NEPTUNE ACQUIRES SUPERIOR METER

Neptune Meter Co. has announced the acquisition of Superior Meter Co., of Brooklyn, manufacturers of gas meters.

Superior makes gas meters for residential, commercial and industrial use and distributes its products to gas companies east of the Mississippi. The company was founded in 1912. Superior is now developing additional facilities with a second plant under construction in Punxsutawney, Pa., scheduled for operation in 1956.

For Neptune, the Superior acquisition represents another step in its program of expansion and diversification in the field of measurement devices, according to D. E. Broggi, Neptune president. In 1954 the company acquired Revere Corporation of America and Stevens Aircraft Corp.

No major changes are planned in Superior's production and marketing organization.

UNDERGROUND STORAGE OF NATURAL GAS INCREASING

The volume of natural gas in underground storage in the United States in 1954 was 1 trillion, 11 billion cubic feet, according to a recent report issued by committtee on underground storage, American Gas Association. This includes an increase of 125 billion cubic feet over 1953. Volume of gas in storage has risen to 2.45 times the 412 billion cubic feet in storage in 1950.

The ultimate capacity of the underground storage reservoirs, which includes all native and cushion gas, on October 31, 1954, was 1 trillion, 859 billion cubic feet, an increase of about 125 billion cubic feet over 1953.

At the end of the 1954 year there was a total of 6,395 active wells operating in 172 storage pools located in the 17 states with underground storage facilities. At the end of 1954, there were 12 new underground storage pools under construction, which will add 180.4 billion cubic feet of storage capacity.

The AGA committee estimates that total capital investment in underground storage operations in 1954 was $343-million. This includes the estimated value of cushion gas as well as investment in plant for underground storage. It is estimated that $64-million will be invested in underground storage facilities during the next 3 years.

Pennsylvania continues to lead the 17 states in underground storage operations, with about 266 billion cubic feet stored in 1954. Ohio is second with 191 billion cubic feet, and West Virginia ranks third with 161 billion cubic feet.

RHEEM APPLIANCES FEATURED IN CONTEST HOUSE

A western style ranch house, completely equipped with Rheem-Wedgewood gas appliances and equipment, will be the grand prize in a "name the house" contest being sponsored in 16 Western states by the Rheem Manufacturing Co. and White King Soap Co. The winner of the contest may take the model home, currently on display in Costa Mesa, Calif., or have an exact duplicate built in his home town.

The Rheem "dream home," a three-bedroom-and-den model, features a Rheem equipment: water heater, water softener and year-round air conditioning equipment, built-in clothes dryer and built-in gas range.

Additional prizes of 120 Rheem-Wedgewood Select-O-Matic gas ranges and clothes dryers will be awarded to weekly winners in the 6-week competition.

CHICAGO CORROSION MEN PLAN MAP

An overlay map showing the cathodically protected underground structures in Chicago is planned by a committee of Chicago section, National Association of Corrosion Engineers. Representatives of 30 companies are on the committee which has elected L. E. Nichols, Northern Illinois Gas Co., as chairman. M. D. Fletcher, Illinois Bell Telephone Co., is secretary. Primary effort of the group will be to act as a clearing house for information pertaining to foreign bonding, installations now in use and to be installed.

Gas Industry CALENDAR

JULY

18-Aug. 13 Southeastern Gas Association, short course in gas technology, Raleigh, N. C.
18-22 Western summer appliance market, Merchandise Mart, San Francisco.
27-28 Michigan Gas Association, Mackinac Island, Mich.
28-July 1 American Home Economics Association, Minneapolis.
Merchandise Mart, San Francisco.
29 AGA board of directors, Denver.

AUGUST

4 AGA, jury of awards, home service achievement, Chicago.
15-Sept. 10 Southeastern Gas Association, short course in gas technology, Raleigh, N. C.
29-31 Appalachian gas measurement short course, West Virginia University, Morgantown.

SEPTEMBER

7-9 Mid-West Gas Association, school and conference, Iowa State College, Ames.
9 New Jersey Gas Association, Hotel Monmouth, Spring Lake.
11-13 INGAA, annual membership meeting, Jasper Park Lodge, Jasper National Park, Alberta.
14-15 AGA, accident prevention conference, Marion Hotel, Little Rock, Ark.
25-30 International Gas Union, 6th conference, Hotel New Yorker, New York.

OCTOBER

12-14 GAMA annual meeting, El Mirador, Palm Springs, Calif.
12-14 Wisconsin Utilities Association, electric and gas section, Schroeder Hotel, Milwaukee.
17 AGA board of directors, Los Angeles.
17-19 AGA-PCGA joint-convention, Los Angeles.
17-21 National metal show (AGA exhibit) Philadelphia.
24-26 Pacific Coast restaurant convention, Biltmore Hotel, Los Angeles.
24-27 National Association of Railroad & Utilities Commissioners, Asheville, N. C.

NOVEMBER

7-11 National Hotel Exposition, Kingsbridge Armory, New York.
13-18 ASME, Congress and Hilton hotels, Chicago.
14-17 API, San Francisco.
16-18 Southeastern Gas Association, Roanoke Hotel, Roanoke, Va.
28-30 SGA advisory council and management conference, Point Clear, Ala.

JANUARY 1956

19 NEGA, operating division, Hotel Statler, Boston.
23-24 Industrial Heating Equipment Association, LaSalle Hotel, Chicago.

FEBRUARY 1956

6-10 Western Winter Radio-Television and Appliance Market, Western Merchandise Mart, San Francisco.

MARCH 1956

12-16 National Association of Corrosion Engineers, Hotel Statler, New York.
19-21 Midwest Gas Association, Omaha, Neb.
22-23 NEGA, annual meeting, Hotel Statler, Boston.

APRIL 1956

4-6 AGA general management section, conference, Conrad Hilton Hotel, Chicago.
16-18 National Conference of Electric and Gas Utility Accountants, Hotels Biltmore and Commodore, New York.
16-19 AGA sales conference on industrial and commercial gas, Hotel Roanoke, Roanoke, Va.
19-21 GAMA annual meeting, The Greenbrier, White Sulphur Springs, W. Va.
23-25 SGA, 48th annual convention, Dallas.

MAY 1956

7-10 AGA, distribution, motor vehicles and corrosion conference, Congress Hotel, Chicago.
7-11 National Restaurant Association, convention and exposition, Navy Pier, Chicago.
10-11 AGA, gas supply, transmission and storage conference, Conrad Hilton Hotel, Chicago.
16-18 AGA, chemical, engineering and manufactured gas production conferference, Philadelphia.

JUNE 1956

24-27 Michigan Gas Association, Grand Hotel, Mackinac Island, Mich.
26-29 Canadian Gas Association, Manoir Richelieu, Murray Bay, Quebec.

JULY 1956

16-20 Western Summer Radio-Television and Appliance Market, Western Merchandise Mart, San Francisco.

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